## NC

Environmental regulations push oil companies to the Arctic.

**Toomey and Klare 12** writes[[1]](#footnote-1)

Klare: **There’s profits to be made**, and this is particularly important to recognize — that this is attractive to the private international oil companies, like Shell, BP, and Exxon Mobil that are going **in**to **the Arctic**, because they’ve been pushed out of the Middle East, Venezuela, and Russia by state-owned companies. So there are very few places where they can go and control the whole process of production, from beginning to end, and the Arctic is one of those few areas. LISTEN: Michael Klare talks about how mining companies are exploiting one of the last protected areas of Gabon. There’s more to it than just that. We’re really at a turning point and I think most people in this country and around the world understand that before too long we’re going to have to transition to other types of energy if we’re to avoid the catastrophic effects of climate change. But the big oil companies, they only know one business, which is producing oil and natural gas and selling it in their service stations. And so they’re determined to maintain their business model as long as possible and they’re resisting the transition to alternative fuels. e360: North America has more than its share of so-called tough oil and gas. That includes the Alberta tar sands and the shale gas fields in the U.S. that are being fracked. As energy extraction heats up in North America, you’ve written that the U.S. is in danger of becoming “a third-world petro state.” What do you mean by that? Klare: Consider what [happened] in the 1960s and 1970s when U.S. and European **oil companies moved into countries like Nigeria and Angola. You had** very low government oversight of oil company operations, **little or no environmental protection**, a lot of corruption, so it was easy to expatriate your profits. You didn’t have to worry about labor regulations or labor unions. **But now** those **places in the** so-called **Third World are** becoming much tougher. They’re either nationalizing their resources or **enforcing** their **environmental regulations** or labor laws. **So it’s not as profitable** as it once was. Meanwhile, in the United States, there are these formations that were once inaccessible, shale rock in particular. But to gain access to these resources in the United States and Canada it will be necessary to roll back a lot of the A major task of China’s leadership is to scour the world for the resources they need to keep the Chinese economy growing.” environmental protections and the labor and tax laws that were imposed over the past 50 years. So the oil companies and the gas companies really want to turn this country back to what it was before environmentalism became an issue, and make it more like the way the Third World was in the 1950s and 60s, with very lax environmental oversight and labor concerns, so that they can use the very aggressive, environmentally hazardous techniques to extract oil and gas from these tough formations. e360: What developments can you point to that indicate that the U.S. is on the road to this?

Arctic drilling causes methane emissions which risk extinction.

**Bannerjee 13** writes[[2]](#footnote-2)

[Brackets in original.] "[Arctic sea ice extent] certainly is continuing the long-term decline," Julienne Stroeve, a scientist at the National Snow and Ice Data Center in Boulder was quoted in a Guardian article. "We are looking at long-term changes and there are going to be bumps and wiggles along the long-term declining trend, but all the **climate models are showing that we are eventually going to lose all of that summer sea ice**." According to the NSIDC the 1979 to 2000 average of the minimum Arctic sea ice extent was 2.59 million square miles, 2007 (1.61), 2008 (1.77), 2009 (1.98), 2010 (1.79), 2011 (1.67), 2012 (1.32), 2013 (1.97). You can see that in two successive years, 2008 and 2009 the number went up a bit from 2007, but then three years in a row, starting in 2010 it went down reaching the lowest ever recorded in 2012, and now it's back up a bit but still 24 percent less than the 1979-2000 average. This is what Julienne Stroeve refers to as "bumps and wiggles along the long-term declining trend." But the most worrisome part of Stroeve's statement is that "we are eventually going to lose all of that summer sea ice." **When that happens, life on earth will be in very serious trouble**. So we need to understand all aspects of the significance of the Arctic sea ice and why we shouldn't contribute further to its disintegration. **The** enormous **white surface of the Arctic sea ice reflects** back **solar radiation**. But **when** the sea **ice is replaced by dark water it** does the reverse, **absorbs solar radiation, which** in turn **contributes to** the **melting** of the Greenland Ice Sheet (which would raise the sea level), thawing of permafrost on tundra (which would release methane trapped in soil), **and destabilization of** the **subsea permafrost (which would release methane** trapped in methane hydrates or clathrates**). Methane** as a greenhouse gas **is 72 times more potent than carbon dioxide** over a 20-year period. A **complete loss of summer sea ice could potentially** release huge amount of Arctic methane that might **lead to a catastrophic** climate change **event**, even possibly **akin to the end-Permian extinction** 252 million years ago **that wiped out more than 90 percent of life** on earth. So our goal should be -- to not add salt to the injury. Dr. James Hansen has repeatedly warned that if Canada's tar sands were fully exploited it would be "game over" for the climate. A complete destabilization of the Arctic sea ice would also be -- game over for the climate. Unfortunately, the Obama administration's National Strategy for the Arctic Region that was released in May is a disaster in the making. The document states: "The region holds sizable proved and potential oil and natural gas resources that will likely continue to provide valuable supplies to meet U.S. energy needs." It's referring to the oil and gas that sits underneath the Arctic seabed in the Beaufort and Chukchi seas of Alaska. In 2012, the Obama administration ignored science and all concerns of the indigenous Iñupiat communities, and gave Shell the approval to begin exploratory drilling (only top-hole drilling and not to penetrate the oil bearing zones) in the Beaufort and Chukchi seas. In February, Shell announced that after both its rigs, Noble Discoverer and Kulluk, suffered heavy damage last year and were cited for EPA violations, it would not drill in Alaska's Arctic waters in 2013. Shell's Arctic drilling operation is in limbo right now. "Six months after federal officials chastised Shell Oil for its faulty offshore drilling operations in the Arctic, the company has yet to explain what safeguards it has put in place or when it plans to resume exploring for oil in the vulnerable region," the Los Angeles Times reported on September 25. Shell has not yet applied to drill in Alaska's Arctic seas in 2014. This is a good time to reflect on drilling in the Arctic Ocean as it relates to sea ice. **Drilling in Arctic seas will result in gas flaring, which emits black carbon** that absorbs solar radiation **and will speed up melting of the Arctic sea ice**. We need to connect a few dots about gas flaring.

# Impacts

## Methane

Arctic drilling causes methane emissions which risk extinction.

**Bannerjee 13** writes[[3]](#footnote-3)

[Brackets in original.] "[Arctic sea ice extent] certainly is continuing the long-term decline," Julienne Stroeve, a scientist at the National Snow and Ice Data Center in Boulder was quoted in a Guardian article. "We are looking at long-term changes and there are going to be bumps and wiggles along the long-term declining trend, but all the **climate models are showing that we are eventually going to lose all of that summer sea ice**." According to the NSIDC the 1979 to 2000 average of the minimum Arctic sea ice extent was 2.59 million square miles, 2007 (1.61), 2008 (1.77), 2009 (1.98), 2010 (1.79), 2011 (1.67), 2012 (1.32), 2013 (1.97). You can see that in two successive years, 2008 and 2009 the number went up a bit from 2007, but then three years in a row, starting in 2010 it went down reaching the lowest ever recorded in 2012, and now it's back up a bit but still 24 percent less than the 1979-2000 average. This is what Julienne Stroeve refers to as "bumps and wiggles along the long-term declining trend." But the most worrisome part of Stroeve's statement is that "we are eventually going to lose all of that summer sea ice." **When that happens, life on earth will be in very serious trouble**. So we need to understand all aspects of the significance of the Arctic sea ice and why we shouldn't contribute further to its disintegration. **The** enormous **white surface of the Arctic sea ice reflects** back **solar radiation**. But **when** the sea **ice is replaced by dark water it** does the reverse, **absorbs solar radiation, which** in turn **contributes to** the **melting** of the Greenland Ice Sheet (which would raise the sea level), thawing of permafrost on tundra (which would release methane trapped in soil), **and destabilization of** the **subsea permafrost (which would release methane** trapped in methane hydrates or clathrates**). Methane** as a greenhouse gas **is 72 times more potent than carbon dioxide** over a 20-year period. A **complete loss of summer sea ice could potentially** release huge amount of Arctic methane that might **lead to a catastrophic** climate change **event**, even possibly **akin to the end-Permian extinction** 252 million years ago **that wiped out more than 90 percent of life** on earth. So our goal should be -- to not add salt to the injury. Dr. James Hansen has repeatedly warned that if Canada's tar sands were fully exploited it would be "game over" for the climate. A complete destabilization of the Arctic sea ice would also be -- game over for the climate. Unfortunately, the Obama administration's National Strategy for the Arctic Region that was released in May is a disaster in the making. The document states: "The region holds sizable proved and potential oil and natural gas resources that will likely continue to provide valuable supplies to meet U.S. energy needs." It's referring to the oil and gas that sits underneath the Arctic seabed in the Beaufort and Chukchi seas of Alaska. In 2012, the Obama administration ignored science and all concerns of the indigenous Iñupiat communities, and gave Shell the approval to begin exploratory drilling (only top-hole drilling and not to penetrate the oil bearing zones) in the Beaufort and Chukchi seas. In February, Shell announced that after both its rigs, Noble Discoverer and Kulluk, suffered heavy damage last year and were cited for EPA violations, it would not drill in Alaska's Arctic waters in 2013. Shell's Arctic drilling operation is in limbo right now. "Six months after federal officials chastised Shell Oil for its faulty offshore drilling operations in the Arctic, the company has yet to explain what safeguards it has put in place or when it plans to resume exploring for oil in the vulnerable region," the Los Angeles Times reported on September 25. Shell has not yet applied to drill in Alaska's Arctic seas in 2014. This is a good time to reflect on drilling in the Arctic Ocean as it relates to sea ice. **Drilling in Arctic seas will result in gas flaring, which emits black carbon** that absorbs solar radiation **and will speed up melting of the Arctic sea ice**. We need to connect a few dots about gas flaring.

The impact has historical precedent from previous mass extinctions. The next one will affect humans.

**Daily Take 13** writes[[4]](#footnote-4)

If you were standing outdoors looking at the distant and reddening sky 250 million years ago as the Permian Mass Extinction was beginning, unless you were in the region that is known as Siberia you would have no idea that a tipping point had just been passed and soon 95% of all life on earth would be dead. It's almost impossible to identify tipping points, except in retrospect. For example, we have almost certainly already past the tipping point to an ice-free Arctic. And we are just now realizing it, even though that tipping point was probably passed a decade or more ago. This is critically important because in the history of our planet **there have been five times when more than half of** all **life on Earth died**. They're referred to as "mass extinctions." One – the one that killed the dinosaurs – was initiated by a meteorite striking the Earth. The rest all appear to have been initiated by tectonic and volcanic activity. **In each case**, however,what happened was that massive amounts of carbon-containing **g**reen**h**ouse **g**ase**s** – principally carbon dioxide, were released from beneath the Earth's crust and up into the atmosphere. This **provoked** global **warming intense enough to melt billions of tons of frozen methane on the ocean**s **floor**s**. That** pulse of methane - an intense greenhouse gas - then **brought** the **extinction** to its full of intensity. While in the past it took continental movement or an asteroid to break up the crust of the earth enough to release ancient stores of carbon into the atmosphere, we humans have been doing this very aggressively for the past 150 years by drilling and mining fossil fuels. So the question: Will several centuries of burning fossil fuels release enough carbon into the atmosphere to mimic the effects of past volcanic and asteroid activity and provoke a mass extinction? Geologists who study mass extinctions are becoming concerned. As more and more research is coming out about the massive stores of methane in the Arctic and around continental shelves, climate scientists are beginning to take notice, too. The **fossil fuel companies are sitting on** roughly **2 trillion tons of underground carbon. That**, in and of itself, **is enough to warm the earth by 5 or 6°C, and is** an amount of carbon **consistent with tipping points during past mass extinctions**. There are an additional estimated 2 trillion tons of methane stored in the Arctic and probably 2 to 5 times that much around continental shelves all around the Earth. **If our burning fossil fuels warms the oceans enough** that that methane melts and is quickly released into the atmosphere, **the Earth will be in its sixth mass extinction**. And make no mistake about it, the **animals and plants** that are **most heavily hit by mass extinctions are those** that are largest and **at the top of the food chain. That means us.** We must stop the carbon madness and move, worldwide, to renewable 21st century energy sources.

## Arctic War

Arctic resource extraction causes conflict. **Rogate and Ferrara 12** write[[5]](#footnote-5)

The 2008 U.S. Geological Survey estimates that the Arctic holds up to 22% of untapped global reserves of energy resources.30 The potential wealth of such untapped natural resources is drawing the Arctic from the periphery back into mainstream international politics as nations scramble to strengthen and consolidate their influence over the region. It is therefore fair to state that **global climate change, along with** significant **tech**nological **innovations in extraction** processes and infrastructure,31 **is contributing to** the **transformation of the Arctic** from a backwater **to a key geographical entity**, resulting in premonitions of the Arctic as the background for the “Great Game” of the 21st Century.32 **The Arctic thaw** has not simply unfrozen the former perennial ice shelves, but **has also sparked new conflicts** on top of established ones, thus compounding an environmental problem with acrimonious political disputes over resources. **The lack of** an **applicable** framework of **i**nternational **law has** therefore **made the Arctic** a region in which it is possible to observe **international anarchy** in one of its purest and most striking forms, as states with divergent interests rush to establish their claims and plant a foothold in this contested area.

Arctic conflict goes nuclear.

**Wallace and Staples 10** writes[[6]](#footnote-6)

The fact is, the Arctic is becoming a zone of increased military competition. Russian President Medvedev has announced the creation of a special military force to defend Arctic claims. Last year Russian General Vladimir Shamanov declared that Russian troops would step up training for Arctic combat, and that Russia’s submarine fleet would increase its “operational radius.” 55 Recently, two Russian attack submarines were spotted off the U.S. east coast for the first time in 15 years. 56 In January 2009, on the eve of Obama’s inauguration, President Bush issued a National Security Presidential Directive on Arctic Regional Policy. It affirmed as a priority the preservation of U.S. military vessel and aircraft mobility and transit throughout the Arctic, including the Northwest Passage, and foresaw greater capabilities to protect U.S. borders in the Arctic. 57 The Bush administration’s disastrous eight years in office, particularly its decision to withdraw from the ABM treaty and deploy missile defence interceptors and a radar station in Eastern Europe, have greatly contributed to the instability we are seeing today, even though the Obama administration has scaled back the planned deployments. **The Arctic has figured in this renewed interest in Cold War weapons systems**, particularly the upgrading of the Thule Ballistic Missile Early Warning System radar in Northern Greenland for ballistic missile defence. The Canadian government, as well, has put forward new military capabilities to protect Canadian sovereignty claims in the Arctic, including proposed ice-capable ships, a northern military training base and a deep-water port. Earlier this year Denmark released an all-party defence position paper that suggests the country should create a dedicated Arctic military contingent that draws on army, navy and air force assets with shipbased helicopters able to drop troops anywhere. 58 Danish fighter planes would be tasked to patrol Greenlandic airspace. Last year Norway chose to buy 48 Lockheed Martin F-35 fighter jets, partly because of their suitability for Arctic patrols. In March, that country held a major Arctic military practice involving 7,000 soldiers from 13 countries in which a fictional country called Northland seized offshore oil rigs. 59 The manoeuvres prompted a protest from Russia – which objected again in June after Sweden held its largest northern military exercise since the end of the Second World War. About 12,000 troops, 50 aircraft and several warships were involved. 609 Ridding the Arctic of Nuclear Weapons: A Task Long Overdue Jayantha Dhanapala, President of Pugwash and former UN under-secretary for disarmament affairs, summarized the situation bluntly: “From those in the international peace and security sector, **deep concerns are being expressed over the fact that two nuclear weapon states** – the United States and the Russian Federation, **which** together **own 95 per cent of the nuclear weapons** in the world **– converge on the Arctic and have competing claims. These claims**, together with those of other allied NATO countries – Canada, Denmark, Iceland, and Norway – could, if unresolved, **lead to conflict escalating into** the threat or **use of nuclear weapons**.” 61 Many will no doubt argue that this is excessively alarmist, but **no circumstance in which nuclear powers find themselves in** military **confrontation can be taken lightly**. The current geo-political threat level is nebulous and low – for now, according to Rob Huebert of the University of Calgary, **“[the] issue is the uncertainty as Arctic states** and non-Arctic states begin to **recognize the** geo-political/**economic significance of the Arctic** because of climate change.” 62

## US-Canada Relations

Increased involvement in the Arctic causes US-Canada tensions. **SIPRI 12** writes[[7]](#footnote-7)

While the USA has not particularly distinguished itself in the inter- national cooperation over the Arctic—although it seems that this is now changing—**Canada** has **repeatedly made clear that it is seeking a leadership role**. The **lingering disagreements between the two** countries **may, however undermine** their ability to pursue their **interests in the region. The** future of the **Arctic will require close coop**eration between Canada and the USA, **not least if** human **activity in the area increases** as it becomes more accessible. **Increased traffic** in the Northwest Passage **will present a challenge to both** Canadian and US capacity to operate in the region, not least **if** **responsibilities** in the area **are unclear.** **The two countries’ inability to agree on key issues** such as the legal status of the Northwest Passage and the maritime boundary in the Beaufort Sea **is affecting not only** their **domestic abilities but also** their abilities to exercise **international leadership** in the region. In terms of boundary issues, for example, Norway and Russia, rather than Canada and the USA, have set a positive example and created a model for future delimitations.

### Canada Good

### Heg

Loss of US-Canada Relations kills heg.

**Lamont 94** writes[[8]](#footnote-8)

Most assuredly, **the U**nited **S**tates **would lose a valued ally in an increasingly turbulent world, would see the North American partnership weakened** and future relations with Canada cast in doubt. The United States would also confront to its north a prickly new nation of Quebec with dubious allegiances and an uncertain course. Canada's dissolution, if it comes, would not present the same dangers it might have twenty years ago when the separatists first came to power in Quebec. Then, the loss of a united Canada would have been a strategic blow to the Western alliance as it sought to maintain a solid front against Soviet expansion. The end of the Cold War has reduced the military dangers of a northern breakup, just as free trade has mitigated the economic perils. But the rupture of Canada would still put at risk many of America's commercial and continental defense arrangements, while entailing substantial costs to its export economy and foreign policy . **Canada's relia­bility as our closest NATO** and North American **stalwart** would be the first big casualty. **No superpower like America can give full focus to**, and effectively exercise, its **worldwide leadership** responsibilities **with** insecurity or **turmoil in its backyard.** Over the long term, a wounded Canada would act less boldly and swiftly in North America 's interests, and would take fewer risks in the international arena. U.S. designs in the hemisphere-for more dependable security structures in Central America arid the Caribbean, say, or for more durable democracies in the southern cone- would be that much more difficult to accomplish without Canada's committed support. A fractured Canada would gradually lose its international Boy Scout image, which U.S. diplomats have found immeasurably helpful. **When America** has **wished some other power to take the lead** on initiatives **where** U.S. **credibility was weak, it** has **frequently used Canada** as a stalking horse **because**, as one U.S. diplomat put it, **'They can do things** that **we can't."**

#### Barnett 11

Heg solves every impact. Decline causes extinction. **Barnett 11**[[9]](#footnote-9)

Let me be more blunt: **As the guardian of globalization, the U.S.** military **has been the greatest force for peace the world has ever known. Had America been removed** from the global dynamics that governed the 20th century, the **mass murder never would have ended.** Indeed, it's entirely conceivable **there would now be no** identifiable human **civilization left, once nuclear weapons entered** the killing equation. But the world did not keep sliding down that path of perpetual war. Instead, **America** stepped up and **changed everything by ushering in** our now-perpetual **great-power peace. We introduced** the international liberal trade order known as **globalization** and played loyal Leviathan over its spread. **What resulted was** the collapse of empires, an explosion of **democracy**, the persistent spread of **human rights**, the liberation of women, the doubling of life expectancy, a roughly 10-fold **increase in** adjusted global **GDP and a profound** and persistent **reduction in** battle deaths from state-based **conflict**s. That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as the Facebook revolutions erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these **calculations suggest a** 90 percent absolute drop and a **99 percent** relative **drop in death**s **due to war.** We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both encourage and accommodate. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, deeply embedded in the geometry to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

#### US-China War

Heg decline causes US-China war. **Kagan 12** writes[[10]](#footnote-10)

The Chinese, as good historians, are acutely aware of the fate that befell these others and have worked hard to avoid a similar fate, following as best they can Deng Xiaoping's advice to "keep a low profile and never take the lead." **As relative power shifts**, however, that advice becomes harder and harder to follow. **We saw** some early signs of what the future might hold in **China's** increasing **assertiveness in the South China Sea. The response of the U**nited **S**tates, which swung in behind the nervous powers in the region, has possibly **convinced the Chinese that their moves were premature. They may have** themselves **bought in** too much **to** the **widespread talk of America in decline. Were that decline to become real** in the coming years**,** however, **it is** a **certain**ty **that Chinese pressures** and probes **will return.** Greater relative power on China's part might also lead Beijing to become less patient with Taiwan's lack of movement toward acquiescing to the mainland's sovereignty. **A situation in which U.S. power were declining, China**'s power **were rising, and** the **Taiwan** issue became fractious **is** practically a textbook instance of **how wars start** -- even if neither side wants war. That is why some have referred to Taiwan as East Asia's Sarajevo.

That goes nuclear. **Kulacki 12** writes[[11]](#footnote-11)

Last week two separate **studies warned that China and** the **U**nited **S**tates are pursuing **military strategies** and implementing defense policies that **could lead to** a **nuclear war**. John Lewis and Xue **Litai of Stanford** University **concluded** a detailed exposition of China's nuclear war plans with a very sober warning. "**Both sides,** clinging to incongruous assessments, **run** **the risk of** provoking **unanticipated escalation to nuclear war** by seeking a quick victory or tactical advantages in a conventional conflict. This dilemma is not only real, but perilous." Thomas **Christensen of Princeton expressed** concern about the same problem; **the possibility that** a conventional military **conflict** between the United States and China **could end in** a **nuclear exchange**. "For example, if strikes by the United States on China's conventional coercive capabilities or their critical command and control nodes and supporting infrastructure were to appear in Beijing as a conventional attack on its nuclear retaliatory capability or as a precursor to a nuclear first strike, **even a China that generally adheres to** a **No-First-Use** posture **might escalate** to the nuclear level." Neither study suggests that the military or political leadership of China or the United States intends to resort to nuclear weapons in the event of a military conflict. China's commitment not to be the first to use nuclear weapons "at any time under any circumstances" is drilled into the officers and soldiers of China's strategic missile forces. A classified text used to train those forces, The Science of Second Artillery Operations, unambiguously instructs, "In accord with our national principle not to be the first to use nuclear weapons under any circumstances, the Second Artillery's strategic nuclear forces can carry out a retaliatory nuclear attack against the enemy, following the command of the 'high leadership,' only after the enemy has first attacked us with nuclear weapons." Although the United States is unwilling to make a similar commitment, U.S. superiority in conventional weapons and overall military capabilities makes it unlikely the United States would consider using nuclear weapons for any purpose other than preventing a Chinese nuclear attack on the United States. The most recent U.S. Nuclear Posture Review, in an effort to deemphasize the role of nuclear weapons in U.S. defense policy, declared that the "fundamental role of U.S. nuclear weapons...is to deter a nuclear attack on the United States, our allies and partners." **The risk** of a nuclear war with China **lies in the potential for** misunderstanding or **miscommunication** during a conventional conflict. **China's** current **strategy** for employing its conventional and nuclear missile forces during a future conflict with the United States **is** self-consciously **designed to create uncertainty**, with the expectation that uncertainty will restrain U.S. military action. Unfortunately, China's strategy could also precipitate a large-scale U.S. attack on China's missile forces. There are several Chinese military policies that might confuse U.S. decision-makers in a time of war. Some Chinese conventional missiles are located on the same missile bases as Chinese nuclear missiles. Some **Chinese missiles**, particularly the DF-21, **can be armed with** either a **conventional or a nuclear warhead**. Chinese conventional war plans call for long-range "strategic" conventional missile strikes at key enemy targets, including U.S. military bases on allied soil and the continental United States. If this were not confusing enough already, The Science of Second Artillery Operations contains a section on "lowering the nuclear threshold" that details procedures for alerting China's nuclear forces in a crisis for the express purpose of forcing a halt to an enemy's conventional attacks on a select group of targets, such as Chinese nuclear power plants, large dams and civilian population centers. Although the Science of Second Artillery Operations unambiguously states that if alerting China's nuclear missile forces fails to halt conventional enemy attacks China will hold firm to its "no first use" commitment, U.S. decision-makers might not believe it. Indeed, **U.S. interlocutors** have repeatedly told their Chinese counterparts that they **do not find China's "n**o **f**irst **u**se" **pledge credible**. The combination of these factors makes a nuclear exchange between the United States and China not only plausible, but also probable if the two countries were to become embroiled in a military conflict. As Lewis and Xue explain, "If, in a time of high tension, the Chinese command authorized a conventional missile attack as an act of preemptive self-defense, the enemy and its allies could not know if the incoming missiles were conventional or nuclear. In a worst-case scenario, a Chinese first-strike conventional attack could spark retaliation that destroys Chinese nuclear assets, creating a situation in which escalation to full-scale nuclear war would not just be possible, but even likely." The Obama administration is "rebalancing" U.S. military forces in response to perceived relative increases in Chinese military capabilities. China sees this so-called "pivot" to Asia, especially when pared with new U.S. military strategies such as "Air-Sea Battle," as a policy of containment. **Both sides downplay the risks** of conflict, **but** they also **see each other as potential adversaries**, **and are hedging their diplomatic bets** **with** expensive investments in new **military hardware**, including new technologies that will expand the conflict into cyberspace and outer space. Territorial disputes between China and U.S. allies, rising nationalist sentiment in the region, and the potential for domestic political instability within China could produce any number of casussen belli that could trigger the conventional conflict that carries the risk of ending in a nuclear war.

#### Santa Claus

Heg is key to deter Santa which solves slavery and animal rights. **Bremmer 12** writes[[12]](#footnote-12)

**Santa** is the most damning piece of evidence yet that we live in a G-Zero world.  This stateless actor **commands a vast intelligence apparatus, a**n apparent **slave army of little people, and** is not above working **animals long past their breaking point.**  By any stretch of the imagination, **he's a rogue actor.**  And yet, **despite these flagrant violations of international norms,** there isn't even a nascent effort to combat, contain or regulate his activities.  The **G-20 continues to** dither, **reveal**ing **itself** yet again **as toothless** and pointless.  **This would never have happened** back **when the U.S. was the hegemon!!**

### Cyber

US-Canada relations key to cyber threat management.

**Carafano et al 10** writes[[13]](#footnote-13)

**Addressing** the wide range of threats confronting America’s **security interests in North America will require NORAD’s involvement**. Umar Farouk Abdulmutallab’s failed attempt to blow up a U.S.-bound jetliner was al-Qaeda’s most recent effort to cause mass casualties in America.[[22]](http://www.heritage.org/research/reports/2010/07/expand-norad-to-improve-security-in-north-america" \l "_ftn22) In addition, **threats to energy, communication, and** computer **networks persist. Malicious third parties can attack the United States through** vulnerable **intermediaries,** such as **Canada,** which **offers a huge backdoor** into the U.S. computer networks. Much of **the infrastructure** of the two nations—from railroads to aviation to pipelines and electrical systems—**is inextricably intertwined.** Canada is also America’s largest trading partner, accounting for many links in U.S. supply chains. NORAD and NORTHCOM have partnered with a number of agencies—including the U.S. Defense Security Cooperation Agency, U.S. Department of Homeland Security, and U.S. Strategic Command— to protect U.S. networks. This cooperation will help NORAD to secure U.S. systems against potential attack, but NORAD does not currently have a lead cyber-security role.[23] **The United States needs** to deepen **cooperation** with its North American partners on cyber security. Both the **Canadian and U.S. economies depend on** a secure and functioning **cyberspace**. Computer systems and infrastructure in both countries are linked and a substantial amount of bilateral trade is conducted through the Internet. Since cyber terrorists and criminals can operate from anywhere, **integration** of cyber-security efforts **is essential to protect computer infrastructure**. Integration is especially necessary for Canada because its 200 law enforcement and 2,500 military personnel dedicated to cyber security are insufficient to prevent cyber attacks effectively. Through NORAD, Canada and the United States could coordinate cyber security with the various military commands and civilian agencies.[24] Cooperation with Mexico as its economy and cyber infrastructure develop is also vital, as the U.S. and Mexican governments acknowledged by creating the Working Group on Cyber-Security in 2004.[25]

Cyber-attack causes nuclear war.

**Tilford 12** writes[[14]](#footnote-14)

To make matters worse **a cyber attack** that **can take out a civilian** power **grid**, for example could also cripple the U.S. military.¶ The senator notes that is that **the same** power **grids** that **supply** cities and towns, stores and gas stations, cell towers and heart monitors also power "**every** military **base in our country**."¶ "**Although bases would** be prepared to **weather a short** power **outage** with backup diesel generators, **within hours**, not days, fuel **supplies** would **run out**", he said.¶ Which means military **c**ommand **and c**ontrol centers **could go dark**.¶ **Radar systems that detect air threats** to our country **would shut Down** completely.¶ "Communication between commanders and their troops would also go silent. And many **weapons systems would be left without** either fuel or electric **power**", said Senator Grassley.¶ "So in a few short hours or days, the mightiest military in the world would be left scrambling to maintain base functions", he said.¶ We contacted the Pentagon and **officials confirmed the threat** of a cyber attack is something very real.¶ Top national security officials—**including the** Chairman of the **Joint Chiefs,** the Director of the National Security Agency, the Secretary of Defense, **and** the **CIA Director**— have said, "preventing a cyber attack and improving the nation~’s electric grids is among the most urgent priorities of our country" (source: Congressional Record).¶ So **how serious is the Pentagon** taking all this?¶ **Enough to start**, or end **a war over it**, for sure (see video: Pentagon declares war on cyber attacks http://www.youtube.com/watch?v=\_kVQrp\_D0kY%26feature=relmfu ).¶ **A cyber attack today** against the US **could** very well **be seen as an "Act of War"** and could be **met with** a "**full scale"** US military response.¶ That could include the use of "**nuclear weapons**", if authorized by the President.

## CBWs

Increased Arctic activity facilitates CBW use by terrorists.

**Mychajlyszyn 8** writes[[15]](#footnote-15)

**Increased** illegal access and illegal activities, including **terrorism** **As the Arctic** generally **becomes more accessible** because of the warming climate, some **analysts predict** the emergence of **new security threats.**(6) **One such risk is** that of an increase in illegal migration and trafficking in persons to North America through the Arctic. There are also fears of the North being used as a thoroughfare for drug trafficking as well as a destination for illegal narcotics. In the post-September 11 era, fears have been raised concerning the **increased vulnerability of the Arctic as a passage for terrorists**, **whether for illegal entry into** North **America or for the transport of** illegal weapons, including **biological and chemical devices**. To such a list of activities, generally perpetrated by organized crime groups, can be added the rise of other types of organized crime, such as those involving industries engaged in the extraction of lucrative resources, such as diamonds and copper.

Bioweapons cause extinction.

**Kellman 8** writes[[16]](#footnote-16)

A looming danger confronts the world—the **threat of bioviolence**. It is a danger that **will** only **grow** in the future, yet we are increasingly failing to confront it. With every passing day, committing a biocatastrophe becomes a bit easier, and this condition will perpetuate for as long as science progresses. Biological warfare is as old as conflict, of course, but in terms of the objectives of traditional warfare— gaining territory or resources, compelling the surrender of an opposing army—biological weapons weren’t very effective. If the objective is to inflict mass death and panic on a mixed population, however, emerging bioweapons offer remarkable potential. We would be irresponsible to presume that radical jihadists **like al Qaeda** have ignored said potential. What’s New in Bioviolence? Bioviolence refers to the many ways to inflict disease as well as the many people who might choose to do so, whether heads of states, criminals, or fanatics. Fortunately, doing bioviolence is technically far more difficult than using conventional explosives. Natural pathogens like anthrax are difficult to weaponize. Smallpox remains unavailable (presumably); plague is readily treatable; Ebola k i l l s t o o q u i c k l y t o i g n i t e a p a ndemic. But emerging scientific disciplines—notably genomics, nanotechnology, and other microsciences— could alter these pathogens for use as weapons. These scientific disciplines offer profound benefits for humanity, yet there is an ominous security challenge in minimizing the danger of their hostile application. For exampl e , highly dangerous **agents can be made resistant to vaccines or antibiotics**. In Australia, scientists introduced a gene into mousepox (a cousin of smallpox) to reduce pest populations—it worked so well that it wiped out 100% of affected mice, even those that had immunity against the disease. Various bacterial agents, such as plague or tularemia (rabbit fever), could be altered to increase their lethality or to evade antibiotic treatment. **Diseases** once thought to be eradicated can now be **resynthesized**, enabling them to spread in reg ions where **there is no natural immunity**. The polio virus has been synthesized from scratch; its creators called it an “animate chemical.” Soon, it may be resynthesized into a form that is contagious even among vaccinated popu l a t i o n s . Recreation of long eradicated livestock diseases could ravage herds severely lacking in genetic diversity, damage food supplies , and cause devastating economic losses. Perhaps the greatest biothreat is the manipulation of the flu and other highly contagious viruses, such as Ebola. Today, scientists can change parts of a virus’s genetic material so that it can perform specific functions. The genomic sequence of the Spanish flu virus that killed upwards of 40 million people nearly a century ago has been widely published; any savvy scientist could reconstruct it. The avian flu is even more lethal, albeit not readily contagious via casual aerosol delivery. A malevolent bioscientist might augment its contagiousness. The Ebola virus might be manipulat ed so that i t ki l l s more slowly, allowing it to be spread farther before its debilitating effects altogether consume its carrier. A bit further off is genetic manipulation of the measles virus—one of the great killers in human history—rendering useless the immunizations that most of us receive in early childhood. Soon , laboratory resynthesis of smallpox may be possible. Advanced drug delivery systems can be used to disseminate lethal agent s to broad populations . Bioregulators — small organic compounds that modify body systems— could enhance targeted delivery technologies. Some experts are concerned that new weapons could be aimed at the immune, neurological, and neuroendocrine systems. Nanotechnology that lends itself to mechanisms for advanced disease detection and drug delivery—such as gold nanotubes that can administer drugs directly into a tumor—could also deliver weaponized agents deep into the body, substantially raising the weapon’s effectiveness. Altogether, techniques that were on the frontiers of science only a decade or two ago are rapidly mutating as progress in the biological sciences enables new ways to produce lethal catastrophe. Today, they are on the horizon. Within a decade, they will be pedestrian. According to the National Academies of Science, “The threat spectrum is broad and evolving—in some ways predictably, in other ways unexpectedly. In the future, genetic engineering and other technologies may lead to the development of pathogenic organisms with unique, unpredictable characteristics.” For as far into the future as we can possibly see, every passing day it becomes slightly easier to commit a violent catastrophe than it was the day before. Indeed, the rapid pace of advancing science helps explain why policies to prevent such a catastrophe are so complicated. Bioviolence Jihad? **Some experts argue** that **terrorists** and fanatics **are not interested in bioviolence** and that the danger might therefore be overblown. Since there have been no catastrophic bioviolence attacks, these experts argue, terrorists lack the intention to make bioweapons. Hopefully, they are correct. But an **enormous amount of evidence suggests they are wrong**. From the dawn of biology’s ability to isolate pathogens, people have pursued hostile applications of biological agents. It is perilous to ignore this extensive history by presuming that today’s villains are not fervent about weaponizing disease. Not a single state admits to having a bioweapons program, but U.S. int e l l i g e n c e o f f i c i a l s a s s e r t t h a t a s many as 10 states might have active programs, including North Korea, Iran, and Syria. Moreover, many terrorist organizations have expressed interest in acquiring biological weapons. Whatever weight the taboo against inflicting disease might have for nation-states, it is obviously irrelevant to terrorists, criminals, and lunatics. Deterrence by threat of retaliation is essentially meaningless for groups with suicidal inclinations who are likely to intermingle with innocent civilians. **Al -Qaeda** and aff i l iat ed I s lami c fundamentalist organizations **have overtly proclaimed their intention to develop and use bioweapons.** The 11th volume of al-Qaeda’s Encyclopedia of Jihad is devoted to chemical and biological weapons. Indeed, alQaeda has acknowledged that “biological weapons are considered the least complicated and easiest to manufacture of all weapons of mass destruction.” Al-Qaeda is widely reported to have acquired legal pathogens via publicly available scientific sources. Before 9/11, al-Qaeda operatives reportedly purchased anthrax and plague from arms dealers in Kazakhstan, and the group has repeatedly urged followers to recruit microbiology and biotechnology experts. Follow ing th e Ta l iban ’ s fa l l , f iv e a l Qaeda biologi cal weapons labs in Afghanistan tested positive for anthrax. Documents calculating aerial dispersal methods of anthrax via balloon were discovered in Kabul, along with anthrax spore concentrate at a nearby vaccine laboratory. According to a lengthy fatwa commissioned by Osama bin Laden, jihadists are entitled to use weapons of mass destruction against the infidels, even if it means killing innocent women, children, and Muslims. No matter that these weapons cannot be specifically targeted. “[N]othing is a greater duty, after faith itself, than repelling an enemy attacker who sows corruption to religion and the world.” According to the fatwa, “No conditions limit this: one repels the enemy however one can.” The sentiment might be reprehen sible, but it is certainly not irrational. Even the most passionate terrorists must realize that conventional attacks are not bringing the West to its knees. The 9/11 strikes, the bombing of the Madrid and London subways, and numerous smaller attacks have all put civilization on edge, but history marches inexorably forward. A few thousand people can be killed, yet Western armies still traverse the world, and Western economies still determine winners and losers. From this perspective, the stakes must be raised. Bioviolence is perhaps the most dire, easiest means to execute existential danger. What Might Bioviolence Accomplish? Envision a series of attacks against capitals of developing states that have close diplomatic linkages with the United States. The attacks would carry a well-publicized yet simple warning: “If you are a friend of the United States, receive its officials, or suppo r t i t s po l i c i e s , thou sand s o f y o u r p e o p l e wi l l g e t s i c k . ” How many a t ta ck s in how many c i t i e s would it take before international diplomacy, to say nothing of international transit, comes to a crashing halt? In comparison to use of conventional or chemical weapons, the potential death toll of a bioattack could be huge . Al though the numbe r of victims would depend on where an attack takes place, the type of pathogen, and the sophistication of the weapons maker, there is widespread consensus among experts that a heightened attack would inflict casualties exceedable only by nuclear weapons. In comparison to nuclear weapons, bioweapons are far easier and cheaper to make and transport, and they can be made in facilities that are far more difficult to detect. The truly unique characteristic of c e r t a i n **bioweapons** t h a t d i s t i nguishes them from every other type of weapon **is contagion.** No other type of weapon can replicate itself and spread. Any other type of attack, no matter how severe, occurs at a certain moment in time at an identifiable place. If you aren’t there, you are angry and upset but not physically injured by the attack. **An attack with a contagious agent can uniquely spread,** potentially imperiling target populations far from where the agents are released. A b i o - o ff e n d e r c o u l d i n f e c t h i s minions with a disease and send them across borders before symptoms are obvious. Carriers will then spread it to other unsuspecting victims who would themselves become extended bioweapons, carrying the disease indiscriminately. There are challenges in executing such an attack, but fanatical terrorist organizations seem to have an endless supply of willing suicide attackers. All this leads to the most important characteristic of bioviolence: It raises incomparable levels of panic. Contagious bioviolence means that planes fly empty or perhaps don’t fly at all. People cancel vacation and travel plans and refuse to interact with each other for fear of unseen affliction. Public entertainment events are canceled; even going to a movie becomes too dangerous. Ultimately, bioviolence is about hiding our children as everyone becomes vulnerable to our most fundamental terror: the fear of disease. **For people who seek to rattle the pillars of modern civilization and** perhaps **cause it to collapse,** effective use of **disease** **would set in motion** political, economic, and health **consequences** so severe as **to call into question** the ability of **existing governments** to maintain their citizens’ security. In an attack’s wake, no one would know when it is over, and no government could credibly tell an anxious population where and when it is safe to resume normal life. While it is difficult to specify when this danger will strike, there should be no doubt that we are vulnerable to a rupture. Just as planes flying into the Twin Towers on September 11, 2001, instantly became a historical marker dividing strategic perspectives before from after, the day that disease is effectively used as an instrument of hate will profoundly change everything. If you want to stop modern civilization in its tracks, bioviolence is the way to go. The notion that no one will ever commit catastrophic bioviolence is simply untenable. What Can We Do? How can we confront these growing dangers? First, we must appreciate the global nature of the problem. Perpetrators from anywhere can get p a t h o g e n s f ro m v i r t u a l l y e v e r ywhe re . Biore s earch labs that onc e were concentrated in about two dozen developed states are proliferating, expanding the risk that lethal agents could be diverted and misused. The knowledge needed to weaponize pathogens is available on the Internet. An attack can be prep a r e d t h ro u g h e a s y n e tw o r k s o f transnational communication. Once a bioweapon is prepared, terrorists or other perpetrators from anywhere can slide across national boundaries and release disease anonymously. Once released, a contagious agent would spread without regard for boundaries, race, religion, or nationality. Public health responses would have to be internationally coordinated. New modes of international l egal coope rat ion would immediately be needed to investigate the crime. Thus, bioviolence dangers shrink the planet into an interdependent neighborhood. It makes no sense for any particular country to try to insulate its homeland from these dangers. No missile defense system will p ro t e c t u s f rom b i o v i o l e n c e . Improved border security will not keep disease at bay. National efforts to enhan c e m ed i ca l p repa redn e s s hav e virtues, but these defenses can be readily circumvented. To prevent bioviolence requires policies that focus on humanity as a species and that are implemented everywhere with centralized governance. Antibioviolence policies must be global. Ye t , advanc ing ant i -bioviol enc e policies is what the international community does worst. Bioviolence dangers are unnecessarily high because national and international antibioviolence strategies are gap-ridden, often incoherent, and not globally observed. As a result, we are all virtually naked in the face of unacceptable dangers. No ot her t hreat pre s ent s such a s tark cont ras t between severity of harm and a failure of leadership to reduce risks. Most important, existing institutional arrangements are inadequate. In sharp contrast to most other global security challenges, there is no responsible international authority that defines relevant prohibitions and responsibilities, implements policies over time, or evaluates whether obligations are being fulfilled. With regard to global bioviolence prevent i o n p o l i c i e s , t h e r e ’ s n o b o d y i n charge. No one is responsible; no one is accountable. The absence of authority is profoundly dangerous. Bioviolence prevention and preparedness requires a sizable orchestra, made up of various instruments, to play complicated music in harmony. Today, there is not a bad “conductor”, there is no conductor at all. The result is cacophony. Simply stated, bioviolence is the dark s ide of global izat ion, ye t int e rna tional alarms of bioviolence ring nowhere! We need a comprehensive national and international strategy for bioviol enc e prevent ion . [Se e box: “Five S t r a t e g i e s f o r P r e v e n t i n g B i oviolence,” page 30.] Policies should be pursued within an integrated approach that enables each policy to gain strength from all the others. Such policies are potentially available and effective, but they demand progressive changes in our global order. The Security Mission Global bioviolence prevention and preparedness policies are imperative, but also imperative is recognition that the world faces natural disease horrors. Where mass public health challenges are daily phenomena, the risks of terrorists using pathogens must be weighed against more tangible natural threats. Simply stated, it is illegitimate to insist that every nation adopt policies for preventing human-inflicted disease without acknowledging the silent genocide of natural disease that is responsible for millions of deaths. But neither is it legitimate to view bioviolence dangers as distractions from efforts to combat natural disease and therefore to put off beneficial measures until those afflictions are defeated. To do so frustrates forward movement on cost-effective initiatives that could help build an international security architecture for advancing science and health. Thus, bioviolence prevention must be a facet of a broad international commitment to: 1. Prevent the spread of disease ( e .g. , through publ i c -heal th measures). 2. Enhance protection against and cures for disease (e.g., through vaccination and drug therapies). 3. Supervise the conduct of biological science. 4. Criminalize unauthorized or improper use of pathogens. From this foundation should flow a policy commitment to the growth of bioscience as a global public good. Policies to encourage its worldwide spread deserve vigorous support. This governance mission should, therefore, be conceived as a global covenant . As bios c i enc e goe s forward as a fundamental pillar of human progress, all nations must undertake common responsibilities to prevent bioviolence even as the burdens associated with those responsibilities are differentiated according to wealth and capability. From everyone according to their abilities—to all for the benefit of all. The United Nations’ Importance The United Nations represents the b e s t venu e fo r a new gove rnanc e platform that can accommodate the need for an integrated global strategy agains t bioviol enc e . Only the United Nations has the necessary in ternational legitimacy, and only the Uni t ed Nat ions can int egrat e the many sectors—health, law enforcement, science, military, emergency preparedness—that must devote expertise and resources. A primary consideration here is to minimize any bureaucratic reshuffling. There is certainly no need to modify or replicate existing capabilities. Many relevant governance tasks are already addressed by one or more international organizations. For example, the World Health Organization should continue to be responsible for addressing the health implications of a pandemic, whether natural or malevolent. Interpol should continue to be responsible for a d d re s s i n g b i o v i o l e n c e ’ s l aw e nforcement implications. Indeed, the UN’s role should be only to coordinate the performance of these tasks. Broadly viewed, the United Nations should be able to undertake three functions: First, a specific UN agency should stimulate bioscience development by incorporating security concerns into the fabric of scientific undertakings and by assisting countries in using bioscience in ways that are consistent with policies for preventing bioviolence. Because science, development, and security can and must be mutually reinforcing, this agency’s primary responsibilities would be to promote and distribute knowledge and build capacity to fulfill obligations, especially in developing nations. Second, a UN office should coordinate activities among the relevant international/regional organizations, professional networks, and expert bodies. For example, three major international organizations focus on health (World Health Organization, Animal Health Organization, and the Food and Agriculture Organization); Interpol and Europol both focus on law enforcement; a large array of organizations focus on conveyance of dangerous items (e.g., International Maritime Organization, International Civil Aviation Organization). This UN office should be a steering mechanism to engage each of these orga nizations’ specialized expertise and to identify synergies. Third, a Security Council Committee should be authorized to investigate bioviolence preparations as well as respond and coordinate assistance to a bioviolence attack. Situations that call for investigation or response arise rarely, but they carry disproportionate significance for international peace and security. The Security Council Committee should not advance programmatic agendas, but it should be able to wield expertise and political muscle in volatile situations. Its primary mission would be to enable the international community to sustain global order in the face of a bioviolence challenge. Ever since someone harnessed a new technology to create a weapon with more devastating effects, there has been a link—a double helix—between the progress of science and the pursuit of security. This is inevitable. These dangers of bioviolence do not a rg u e f o r re l i n q u i s h i n g s c i e n t i f i c progress, but they disprove notions tha t n ew cha l l eng e s can b e e ff e ct ive ly addre s s ed wi th ye s t e rday’ s policies. At bottom is a condition unique to this historical era: Scientific progress is intertwined with escalating malevolence threatening human security. Progressing **capabilities** improve our l ive s and ye t , inext r i cably, **enable** truly **harmful weapons against humanity**. Here are the challenges to international peace and security at the beginning of the third millennium. **Failing** to do the right thing in response to these challenges **could have dire consequences for all humanity.**

### Outweighs Nuclear War

Bioweapons outweigh nuclear war – three reasons

A. Probability – bioweapons are more likely to cause extinction.

**Steinbrunner 97** writes[[17]](#footnote-17)

Although human pathogens are often lumped with nuclear explosives and lethal chemicals as potential weapons of mass destruction, there is an obvious, fundamentally important difference: **Pathogens are alive, weapons are not. Nuclear** and chemical **weapons do not reproduce themselves and** do not independently **engage in adaptive behavior**; pathogens do both of these things. That deceptively simple observation has immense implications. The use of a manufactured weapon is a singular event. Most of the damage occurs immediately. The after effects, whatever they may be, decay rapidly over time and distance in a reasonably predictable manner. Even before a nuclear warhead is detonated, for instance, it is possible to estimate the extent of the subsequent damage and the likely level of radioactive fallout. Such predictability is an essential component for tactical military planning. The use of **a pathogen, by contrast, is an extended process whose scope and timing cannot be precisely controlled.** For most potential biological agents, the predominant drawback is that they would not act swiftly or decisively enough to be an effective weapon. But for a few pathogens - ones most likely to have a decisive effect and therefore the ones most likely to be contemplated for deliberately hostile use - the risk runs in the other direction. A lethal pathogen that could efficiently spread from one victim to another would be capable of initiating an intensifying cascade of disease that might ultimately threaten the entire world population. **The 1918** in**flu**enza **epidemic demonstrated the potential for a global contagion** of this sort **but not** necessarily **its outer limit.** Nobody really knows how serious a possibility this might be, since there is no way to measure it reliably.

B. Controls the internal link – use of bioweapons guarantees nuclear retaliation.

**Conley 3** writes[[18]](#footnote-18)

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the US reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). Although these events caused anger and a desire for retaliation among the American public, they prompted no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude higher than the casualties caused by these events. Using the rule of proportionality as a guide, one could justifiably debate whether the United States should use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the **casualty count** was **around 300,000**? Such an unthinkable result **from a single CBW incident is not beyond the realm of possibility:** “According to the U.S. Congress Office of Technology Assessment, **100 kg of anthrax spores** delivered by an efficient aerosol generator on a large urban target **would be between two and six times as lethal as a** one megaton thermo-**nuclear bomb.**”46 **Would the deaths of 300,000** Americans **be enough to trigger a nuclear response? In this case, proportionality does not rule out the use of nuclear weapons.** Besides simply the total number of casualties, the types of casualties- predominantly military versus civilian- will also affect the nature and scope of the US reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as they would be if the attack were against civilians. World War II provides perhaps the best examples for the kind of event or circumstance that would have to take place to trigger a nuclear response. A CBW event that produced **a shock and death toll** roughly **equivalent to** those arising from the attack on **Pearl Harbor might be sufficient to prompt** a **nuclear retaliation.** President Harry Truman’s decision to drop atomic bombs on Hiroshima and Nagasaki- based upon a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland47- is an example of the kind of thought process that would have to occur prior to a nuclear response to a CBW event. Victor Utgoff suggests that “if nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, **nuclear retaliation would be more than just a possibility, whatever promises had been made.**”48

C. Magnitude – Even full-scale nuclear war won’t cause extinction.

**Kearny 82** writes[[19]](#footnote-19)

° Facts: Unsurvivable "nuclear winter" is a discredited theory that, since its conception in 1982, has been used to frighten additional millions into believing that trying to survive a nuclear war is a waste of effort and resources, and that only by ridding the world of almost all nuclear weapons do we have a chance of surviving. **Non-propagandizing scientists** recently have **calculated that the climatic** and other environmental **effects of even an all-out nuclear war would be much less severe** than the catastrophic effects repeatedly publicized by popular astronomer Carl Sagan and his fellow activist scientists, and by all the involved Soviet scientists. Conclusions reached from these recent, realistic calculations are summarized in an article, "Nuclear Winter Reappraised", featured in the 1986 summer issue of Foreign Affairs, the prestigious quarterly of the Council on Foreign Relations. The authors, Starley L. Thompson and Stephen H. Schneider, are atmospheric scientists with the National Center for Atmospheric Research. They showed " that on scientific grounds the global apocalyptic conclusions of the initial nuclear winter hypothesis can now be relegated to a vanishing low level of probability." Their models indicate that in July (when the greatest temperature reductions would result) the average temperature in the United States would be reduced for a few days from about 70 degrees Fahrenheit to approximately 50 degrees. (In contrast, under the same conditions Carl Sagan, his associates, and the Russian scientists predicted a resulting average temperature of about 10 degrees below zero Fahrenheit, lasting for many weeks!) Persons who want to learn more about possible post-attack climatic effects also should read the Fall 1986 issue of Foreign Affairs. This issue contains a long letter from Thompson and Schneider which further demolishes the theory of catastrophic "nuclear winter." Continuing studies indicate there will be even smaller reductions in temperature than those calculated by Thompson and Schneider. **Soviet propagandists promptly exploited belief in** unsurvivable **"nuclear winter" to increase fear of nuclear** weapons and **war**, and to demoralize their enemies. Because raging city firestorms are needed to inject huge amounts of smoke into the stratosphere and thus, according to one discredited theory, prevent almost all solar heat from reaching the ground, the Soviets changed their descriptions of how a modern city will burn if blasted by a nuclear explosion. **Firestorms destroyed** the centers of **Hamburg, Dresden, and Tokyo.** The old-fashioned buildings of those cities contained large amounts of flammable materials, were ignited by many thousands of small incendiaries, and burned quickly as standing structures well supplied with air. **No firestorm has ever injected smoke into the stratosphere, or caused** appreciable **cooling below its smoke cloud.**

### Shorter Impact Card

CBW use causes extinction.

**Sandberg et al 8** writes[[20]](#footnote-20)

The risks from anthropogenic hazards appear at present larger than those from natural ones. Although great progress has been made in reducing the number of nuclear weapons in the world, humanity is still threatened by the possibility of a global thermonuclear war and a resulting nuclear winter. We may face even greater risks from emerging technologies. **Advances in synthetic biology might make it possible to engineer pathogens capable of extinction**-level pandemics. The knowledge, equipment, and materials needed to engineer pathogens are more accessible than those needed to build nuclear weapons. And unlike other weapons, **pathogens are self-replicating, allowing a small arsenal to become exponentially destructive.** Pathogens have been implicated in the extinctions of many wild species. Although most pandemics "fade out" by reducing the density of susceptible populations, **pathogens with wide host ranges** in multiple species **can reach** even **isolated individuals**. The intentional or unintentional **release of engineered pathogens** with high transmissibility, latency, and lethality **might be capable of causing human extinction**. While such an event seems unlikely today, the likelihood may increase as biotechnologies continue to improve at a rate rivaling Moore's Law.

## Oil Spill

Arctic oil drilling makes an oil spill very likely. Experts agree.

**Harvey and Walker 13** write[[21]](#footnote-21)

A **serious oil spill in the Arctic is a "dead cert" if drilling goes ahead**, with potentially devastating consequences for the pristine region, **according to a leading marine scientist who played a key role in analysis of BP's** Deepwater Horizon oil **spill**. The warning came as Russia filed court orders this week to have Greenpeace activists and journalists kept in prison for a further three months in prison before their trial over a protest at Arctic oil dirlling. Concerns about the potentially dire consequences of drilling for oil in the region have intensified as the Russian government and others have begun exploration under the Arctic seas. In such a cold region, a**ny spill would be** much more **troublesome, because** the **oil would not** naturally **disperse as it does in warmer waters, and** because of the **difficulty of mounting** a **clean-up** operation **in hostile weather** conditions. The "Arctic 30" – comprising 28 activists and two journalists – were arrested when Greenpeace's Arctic Sunrise vessel was boarded by Russian coastguards in September and are facing lengthy jail terms if they are convicted. They have been kept in harsh conditions in freezing cold jail cells with poor food, and are being moved 800 miles from Murmansk to St Petersburg. Simon **Boxall, an oil spill expert** from the University of Southampton**, told** the Guardian exploring the region was inherently dangerous: "It is inevitable you will get a spill – a dead cert. **I would expect to see a major spill in the not too distant future. I would be astonished if you did not see a major spill from this."** The conditions in the Arctic would vastly compound the problem, he said. "It's a completely different environment. In temperate climes, oil disperses quickly. Bacteria help [to digest the oil]. In the Arctic the oil does not break down in this way – it can take decades before it breaks down. Nature will not help us." During those decades, any spilled oil would be a serious hazard to marine life. No industry is perfect, Boxall said, but the oil industry has behaved poorly in the past. "**There are** lots of **failsafes** on planes, **but accidents still happen. At times, this is an irresponsible industry. Corners are cut, money is saved in small ways**. Then it can go wrong and end up costing a huge amount of money, like in the Gulf of Mexico." He added: "Different countries have different levels of health and safety. Russia does not have an enviable record on this."

### Turns Environment

Arctic oil spill turns the environment and will be worse than the BP spill.

**McCarthy 11** writes[[22]](#footnote-22)

**Any serious oil spill in** the ice of **the Arctic**, the "new frontier" for oil exploration, **is likely to be an uncontrollable environmental disaster** despoiling vast areas of the world's most untouched ecosystem, **one of the world's leading polar scientists** has **told** The Independent. **Oil from an undersea leak** will not only be very hard to deal with in Arctic conditions, it **will interact with** the **surface sea ice and become absorbed in it,** and will be **transported** by it for **as much as 1,000 miles across the ocean**, according to Peter Wadhams, Professor of ocean physics at the University of Cambridge. The interaction, discovered in large-scale experiments 30 years ago, means that the Arctic oil rush, which was given a huge boost last week with a $3.2 billion (£1.9bn) investment from Exxon Mobil, is likely to be the riskiest form of oil exploration ever undertaken, said Professor Wadhams, who is a former director of Cambridge's Scott Polar Research Institute. "If there is serious oil spill under ice in the Arctic it will be very hard, if not impossible to stop it becoming an environmental catastrophe," he said. "**It will be** very **much harder to deal with than a** major **spill in open water**." The world's **oil companies are** now **turning to the Far North as supplies elsewhere** across the globe start to run out or **become harder to extract**, and both the potential profits from Arctic oil, and the fears about the damage that extracting it may do, are enormous. The area north of the Arctic Circle is thought to contain as much as 160 billion barrels of oil, more than a quarter of the world's undiscovered reserves. Some of it is under land, as in Alaska's North Slope field, but large amounts of it are known to lie under the seabeds of the Arctic Ocean and Baffin Bay off Greenland, which are ice-covered for all or part of the year, depending on the region. It is this offshore oil which is now the focus of a new exploration rush, with Royal Dutch Shell and Exxon among the strongest contenders, focusing on the Arctic Ocean itself, while the first wells in the sea off Greenland are already being drilled by Edinburgh-based Cairn Energy. However, **many** observers **are** seriously **alarmed about** the **spill risks** in the extreme conditions, especially **in the wake of BP's calamitous leak** at the Deepwater Horizon platform in the Gulf of Mexico last year, which could not be controlled for three months, released as much as five million barrels of crude, and came close to wrecking the company. "A spill in the Arctic would essentially make dealing with something like Deepwater Horizon look almost straightforward," said Ben Ayliffe, polar campaigner for Greenpeace. "There are problems with ice encroachment, the remoteness of the Arctic, darkness, extreme weather, deep water, high seas, freezing conditions and icebergs. Basically it would mean that **responding to a Gulf of Mexico-style spill** off somewhere like Greenland **would be impossible**." Yet Professor Wadhams, who was the first civilian scientist to travel under the Arctic ice in a submarine, in 1971, and who has made five more under-ice trips, is spotlighting an even greater level of concern with his knowledge of how oil and ice interact – with potentially calamitous consequences. It stems from large-scale experiments he took part in off the coast of Canada in the 1970s, in which substantial quantities of oil were deliberately released into the frozen sea, to see how it behaved. "What we found, and one of the great difficulties, is that spilled oil becomes encapsulated in the ice and is then transported around the Arctic by it," he said. "The **oil is caught underneath** the **ice, so you can't get at immediately to clean** it **up or burn it off. You don't know** exactly **where it is, and then it gets encapsulated in the new ice which grows underneath**, so you then have a kind of oil sandwich inside the pack ice. "And that's being transported around the Arctic and isn't released until spring, when it may be several hundred or even a thousand miles from the source of the spill, so you can have a huge area of the Arctic becoming polluted by oil without initially it being clear where that oil is." He added: "Once it is released in springtime, it's very toxic, because the encapsulation in the ice preserves the oil from weathering, so that instead of the lighter fraction evaporating and the heavier fraction becoming just tar balls, you have fresh oil being released exactly where the ice is melting, usually round the edge of the pack ice where you've got a lot of migratory birds. "Not great for the environment. In fact, I think the appropriate word would be 'terrible'." Professor Wadhams is so concerned that he is helping to organise a high-level scientific workshop on the subject of oil spills in sea ice, in Italy later this month. While companies such as Cairn Energy stress that they will be drilling exploratory wells only in the summer months, in areas of sea which are ice-free, **it is likely that once oil production** actually **begins, it will be a year-round business and continue through the winter when** production **facilities are ice-bound**. "We would need to produce all year round, in order to make the whole thing worthwhile," a spokesman for Shell said at the weekend. The oil companies insist that they are aware of the risks and have prepared detailed oil spill response plans, but Professor Wadhams, who has read several of them, said they did not amount to comprehensive plans for dealing with oil in ice.

### Biodiversity-Specific

Arctic drilling causes substantial biodiversity loss.

**Harvey and Walker 13** write[[23]](#footnote-23)

Even without a spill, exploring the region could disrupt the Arctic environment, warned Jonathan Bamber of the University of Bristol. "**You get** an **increase in shipping, and ships release** their **ballast water which contains species from other areas**. So you could get the introduction to the Arctic of entirely foreign species and we don't know the impact of that. **The Arctic ocean is** very enclosed, **virtually landlocked, so this could** have very big consequences and **affect the whole food chain**." Greenpeace pointed out that **the Arctic is the habitat for "a diverse range of unique wildlife", including 17 species of whale – such as the endangered narwhal, 90% of the remaining population** of which lives **in Baffin Bay – as well as polar bears,** Arctic **foxes, seals, hundreds of species of seabirds and millions of migrating birds**. There are also 4m people who live in the Arctic, descendants of indigenous communities who have lived there for thousands of years. "The impact of a spill on these communities and already vulnerable animal species would be devastating and long-lasting," the group said.

### Probability

Arctic oil spill is highly probable.

**OCI 14** writes[[24]](#footnote-24)

The **documents underlying Shell’s** proposals to drill exploration wells in the Beaufort and Chukchi seas **have repeatedly discounted** the **chances of a large spill or a well blowout** as so improbable as not to warrant analysis. **But major spills have occurred** during exploration drilling (**including BP’s** Deepwater Horizon **blowout** in 2010 **and Petronas’ spill north of Australia** in 2009), and well blowouts have occurred in shallow water (including Total’s Elgin gas leak in the North Sea in 2012). **The** remote US **Arctic** Ocean **presents unique** operating **risks – limited accessibility due to storms,** the presence of **thick multi-year ice,** a **lack of daylight and** the **use of floating rigs** rather than stationary concrete-reinforced structures. In its 2008 draft environmental impact statement for the Chukchi and Beaufort Planning Areas, **the government estimated** that there is **a 40% chance of a large spill** (over 1000 barrels) during the lifetime of exploration and extraction of oil in the Chukchi Sea.95 **The probability of small spills is close to 100%** – as elsewhere, such spills are an accepted fact of oil companies’ operations. But in the Arctic they will be associated with more significant technical challenges and therefore higher costs.

### Arctic Enviro Good

Destruction of the Arctic ecosystem causes extinction. The Arctic is key to the global environment. **Ford 3** writes[[25]](#footnote-25)

**The Arctic ecosystem is** a **fundamental** contributor **to global processes and** the balance of **life on earth**. Both the **unique** physical and biological **characteristics** of the Arctic ecosystem **play key roles in maintaining** the integrity of **the global environment**. Massive **ice sheets** and ice cover **regulate** the **global temperatures** by reflecting much of the solar radiation back into space, the Arctic ocean influences global ocean currents which are responsible for a variety of weather conditions and events, to name but two. The Arctic is also the recipient of the by-products of southern-based industry and agricultural practices. In February 2003, UNEP’s Governing Council passed **a resolution** effectively **recognizes the Arctic as a “barometer”** or indicator region **of the globe’s environmental health**. This is important and is further reason why Arctic indigenous peoples should work together at the international level. Late last year ICC and RAIPON participated in the Global Environment Facility (GEF) Council meeting in Beijing, China with the aim of sensitizing this organization to the Arctic dimension of global environmental issues. I understand that the GEF is now willing to consider indigenous peoples and their organizations to be distinct and separate from environmental and other NGO’s.

The Arctic ecosystem is uniquely vulnerable and turns indigenous people.

**EPA 99** writes[[26]](#footnote-26)

The Arctic – **The Arctic ecosystem is highly vulnerable to** the remaining burden of **radioactive and other contaminants** in the region. The effects of environmental contamination are intensified by several characteristics of the Arctic ecosystem. **The region’s** permanently frozen land (**permafrost**) **is highly sensitive to temperature changes, and dispersed pollutants** from vast areas **drain into** the **Arctic seas**. In addition, **indigenous people and animals** high on the food chain **consume a diet that promotes accumulation of toxins in their body tissues. The Arctic ecosystem may be further stressed by** expected **economic and political changes**. These include the revival of the Russian economy from its post-Cold War slump and the rebirth of trans-Arctic coastal commerce, which is likely to involve trans-polar air transportation routes and greatly expanded use of icebreaker vessels.

### AT Squo Solves Containment

Response to an Arctic oil spill would be very difficult.

**OCI 14** writes[[27]](#footnote-27)

So far, no analyses have been published quantifying the specific oil spill response impediments in Shell’s lease areas in the Chukchi Sea. But a study commissioned by **WWF found that it would not be possible to respond to an oil spill in the** Canadian **Beaufort Sea for seven to eight months** of the year.15 During the most favourable weather conditions (July–August), a response would only be possible 44 –46% of the time, assuming that the infrastructure and workforce were readily available. A response gap analysis needs to be carried out and published to be able to accurately assess the threat that spills pose to Shell’s potential operations. Even if response efforts can be mounted, the **usual techniques for controlling a spill** (booms, skimmers, and dispersants) **are of questionable efficacy in icy waters**. Nonetheless, Shell’s worst case scenario planning is based on the questionable assumption that those types of mechanical recovery equipment would recover 95% of a major spill before it could reach the shoreline16 – a clean-up rate that has not been achieved for any large spill anywhere to date (see section 4.2). Less than 10% of spilled oil was recovered using these techniques after the Deepwater Horizon and Exxon Valdez spills.17 The **infrastructure to mount a** large-scale **response to an oil spill in the Chukchi Sea** simply **does not exist. The nearest major road** system **is more than 500 miles away** as the crow flies. **There are no hotels** or other housing **capable of accommodating** thousands of **responders**. The nearest Coast Guard station is roughly 1000 miles from the likely drilling sites (see section 4.3). **Essential safety equipment has not been tested** in appropriate real-life conditions. A 2012 Freedom of Information Act request revealed that **Shell’s capping stack** (vital equipment in case of a well blowout) **was tested** for less than two hours **off the coast of Seattle rather than in icy water** and was not attached to a simulated wellhead and blowout preventer as would be necessary in real life (see section 4.5). Shell’s 2014 Chukchi Sea exploration plan suggests that overall spill response capacity may be reduced. The previously approved oil spill response plan depends upon simultaneous operations in the Chukchi and Beaufort Seas allowing both fleets to be mobilised in the event of a spill in one sea. Shell’s operational plans do not explicitly commit to bringing all of the assets proposed for response in the previous plan and do not propose increasing response capacity, despite only intending to operate in the Chukchi Sea (see section 4.4).

### AT BP Spill

Unlike the BP spill, an Arctic oil spill can’t be easily contained.

**Toomey and Klare 12** writes[[28]](#footnote-28)

[Bracket in original] Klare: We’re really going to be using very aggressive means of extraction, so the environmental consequences are going to be proportionally greater. For example, to get oil and natural gas out of shale rock, you can’t just drill Oil companies want to turn this country back to what it was before environmentalism became an issue.” and expect it to come out. It doesn’t work that way. You have to smash the rock, you have to produce fractures in the rock, and we use a very aggressive technology to do that — hydraulic fracturing — and the water is brought under tremendous pressure and it’s laced with toxic chemicals, and when the water is extracted from these wells it can’t be put back into the environment without risk of poisoning water supplies. So there’s a tremendous problem of storage, of toxic water supplies, and we really haven’t solved that problem. And that’s just one example. Drilling in the Arctic presents a tremendous problem because the Arctic, by its very nature, is at the edge of survival and all the species there are living at the edge of survival, so any oil spill could push them over the edge into extinction. So [oil companies] must have on hand all kinds of **extra capacity to deal with** the possibility of **spills**, and that’s much **more difficult to engineer than in the Gulf** of Mexico**, where** there are **tens of thousands of boats that you could hire on short notice** to **bring out skimmers and booms** to contain a spill**. There’s nothing like that in the Arctic.** Moreover, **if this were to happen in winter, there would be no way to move equipment** up there **to build a relief drill**. Remember, it was **a relief drill** that **closed** the **Deepwater Horizon** spill, but you can’t do that in the middle of winter when the Arctic [Ocean] is covered with ice. e360: Yet despite all that, there’s profits to be made.

## Indigenous People

Arctic drilling harms indigenous people. Multiple warrants. **Macalister 11** writes[[29]](#footnote-29)

"I certainly have seen the benefits that can come from [oil] royalties. Schools are better. There are swimming pools, gymnasium, cars – and jobs – all the result of billions of dollars." Patricia **Cochran, a former chair of the Inuit** Circumpolar **Council from Alaska, expresses the view of many indigenous people** on industrial development in the Arctic. Vast oil and mineral wealth have brought huge benefits to some communities. But her own conflicted feelings about development neatly sum up the dilemma that indigenous leaders in the region face. **In Barrow** – Alaska's oil capital – **there are** also **high rates of suicide and depression, while** offshore **drilling is a threat to subsistence whaling and** the **hunting of seals and walrus, she points out.** So despite the benefits, **Cochran is** personally quite **negative about industrial development** and questions the wider benefit to society. "I personally have a problem with it. I was raised in a traditional way and regard it as my job to be a steward of the land. I see this [industrialised] world of hedonism and consumption as a sign we have lost our moral compass." And there are fears that the vast sums on offer can sometimes be too tempting. Aqqaluk Lynge, current chair of the council, says the wave of **money that big multinationals bring to** their **lobbying "overwhelms" local community organisations**. "We have questions about how the democratic process is gone about and how decisions are reached," he said. "**How can we survive as a people under** the **pressure** that comes **from oil companies whose daily income can be higher than our annual budget?** "Arctic people themselves must have the time to look into [proposed industrial projects] to ensure we are not risking losing our country, self-rule or livelihoods." Lynge, a continuing activist based in Nuuk, the capital of Greenland, is most concerned about the decision by the government there to allow British-based oil explorer, Cairn Energy, to drill last summer and again this year. But he is also worried about moves by Canadian metals group, Alcoa, to try to press ahead with plans to build a massive aluminium smelter on the island. The Inuit leader accepts Greenland ministers have the democratic right to negotiate and to reach agreements with companies. But he says the consultation process is still fatally undermined by the imbalance between the financial resources of Cairn and the like, compared to that available to local indigenous communities. Greenland, whose population is 80% Inuit, has recently won a measure of self-rule from its traditional colonial masters, Denmark. The new government in Nuuk is desperately keen to win complete independence and understands this is impossible while the country is dependent on financial handouts from Copenhagen. But Inuuteq Holm Olsen, Greenland deputy foreign minister, says that environmental concerns should be balanced against economics. "We welcome focus and attention on environmental issues … What we don't welcome is the notion that there should not be any industrial development in the name of environmental protection." Lynge says he realises that Cairn and Alcoa may offer a get-rich-quick route for Greenland and therefore a fast-track to political self-determination. But he says that rushing into oil and mineral exploitation deals risks drowning out a proper debate within the country about the pros and cons of industrialisation which could further undermine the traditional Inuit way of life based around fishing and hunting. "We don't have the proper democratic infrastructure in place for a public hearing mechanism. So Cairn can knock on one [government] door and win agreement for their plans. This is a problem. "We are not against development in general as such but what we really want to see is sustainable development that will enable us to live in the future in the way we have for hundreds of years around fishing. We know oil and gas is not ultimately sustainable because it will run out." Other concerns are more particular – such as where the kind of skilled workforce will come from to deal with any oil or other largescale industrial schemes. Greenland's workforce is just 32,000 people. **If large numbers of workers are brought** in **from outside, indigenous people risk becoming a minority**. There is also a fear that **big business can use** its **financial muscle to buy off opposition** while not having its own track records fully investigated. **"Propaganda can be done in** simple ways. **Promises to give** lots of **work or money to** local **communities**: people tend to say 'yes' to these things without necessarily thinking them through the consequences," said Lynge. Inuit in Canada have 40 years' experience with oil so have found their own way of accommodating change. But even there, local leaders of indigenous people have mixed views about who is really benefiting. And overall the "community" representing indigenous people is split down the middle over the issue. Certainly the big oil companies that have been active in the seas off Alaska since the late 1980s are keen to be seen consulting local people. Robert Blaauw, the Anglo-Dutch company's spokesman on the Arctic said: "Many coastal native communities depend on fishing and hunting of sea mammals not only for survival but also to keep alive a cultural centrepiece that has thrived for centuries. With that experience comes a deep knowledge of the Arctic environment … We continue to be humbled by what we don't know and we are constantly looking for ways to incorporate traditional knowledge into our operations. Not just for the advancement of our project, but out of respect for those who will live off the ocean long after we are gone." Ove Gudmestad, a professor of marine and Arctic technology at the University of Stavanger in Norway, carries out academic research which is useful to oil companies, and has travelled widely in the far north region. He believes there are practical problems and a fundamental lack of trust between indigenous people and the oil industry. "Of course it is important to take local knowledge into account, but **it is hard to speak local languages**. Whether it is in the US or Norway, **fishermen do not trust** the politicians or the NPD [Norwegian Petroleum Directorate] – never mind the **oil companies**." Gudmestad said **local people were rightly wary that they could get sucked into a legal dispute that could last for decades and for which** the **oil companies are** far **better prepared and resourced**. "Just remember that in the US for every petroleum engineer being trained there are 200 lawyers," he jokes. Lynge would like to see a more holistic look at the future for the Arctic in the light of climate change which already threatens some coastal communities with flooding and dislocation. "I don't like the way that the debate seems to be framed around the industrial opportunities created by global warming. I would rather see a much better study about how climate change will affect fish stocks and renewable energy sources to see what we can survive on in future."

Arctic resource extraction harms indigenous people.

**Aqukkasuk 13** writes[[30]](#footnote-30)

Just last week Nunatsiaq News published two articles highlighting Nunavik’s severe health disparities and the staggering level of food insecurity in Nunavut. The data published in these studies and in others I’ve highlighted elsewhere in this blog paint a pretty grim picture of life in many Inuit communities, including in Alaska. As rapid climate change ushers in an **accelerating Arctic resource rush**, these and other **issues beg the question: will** off-shore **oil extraction** and other “development” **result in meaningful benefits to** Inuit and other **Arctic indigenous communities?** Indigenous peoples have always been told that we will benefit from resource extraction on our homelands, but **our communities have generally received pennies on the dollar while** more systemic challenges such as **language shift, violence and suicide** have **continue**d **unabated**. The **financial success of** multi-billion dollar Iñupiat-owned for profit corporations such as **the Arctic Slope Regional Corporation and NANA** Regional Corporation **has also not necessarily translated into action on** issues such as **household violence, child sexual abuse and education**al attainment**. Inuit communities need jobs, education and money, but large-scale resource extraction** hasn’t been and **won’t be a panacea** to these and other issues without forward-thinking leadership.

# Frontlines

**AT Shell Suspension**

The legal ruling against Shell doesn’t preclude future drilling.

**Martelle 1-30** writes[[31]](#footnote-31)

**Shell announced** Thursday that **it was scrapping plans to drill** this year **after a Jan.** 22 **ruling by the U.S.** 9th Circuit **Court of Appeals**, which said the government violated the law when it opened the Arctic to drilling in the first place. Though **the decision doesn’t preclude Shell and other oil companies from** ultimately **drilling** on leases they bought from the federal government, maybe the court’s ruling will lead the Obama administration to revisit its head-scratching conclusion that such efforts are safe.

## AT Extraction Costs

There will be interest in Arctic oil despite extraction costs. **Lindholt 6** writes[[32]](#footnote-32)

With respect to proven petroleum reserves, gas is much more important than oil. Of the total global proven reserves of oil and gas, 5.3 and 21.7 per cent, respectively, are located in the Arctic (see Figure 3.2). Almost all of the Arctic proven gas reserves are found in Russia. Also regarding the Arctic oil reserves, we find around 90 per cent in Russia. **The oil price is expected to remain high over the next two decades, thus Arctic resources are attracting** considerable **attention, in spite of** the **relatively high extraction costs** in these areas. Consequently, the Arctic is under vigorous pressure to lift production.

**AT Arctic War Defense**

Arctic commercialization independently causes escalatory conflict with Russia, China and Korea. Their defense is based on flawed risk assessment that ignores unique uncertainties in the Arctic.

**Backus 12** writes[[33]](#footnote-33)

Because no entity, other than perhaps the Russian government, has the military bases and means to accommodate area-wide protection and enforcement needs, the United States will necessarily have to maintain strong cooperative arrangements with nations and corporations for the coordinated, safe, and secure use of Arctic resources. Although the Arctic nations themselves may strive for cooperation, entanglement with corporations and other foreign entities will assuredly produce tensions that are outside the domain of the US Coast Guard. Right now, **the US military position** in the Arctic **is problematic**. Both the Northern Command and the European Command have responsibility for what, in a cooperative multinational environment, is a single area (Carafano et al., 2011; Carmen et al., 2010). Some analysts argue that NATO should play the coordinating role in the Arctic (Conley, 2012), but such a path would create new tensions among the national players, and it does not resolve the specific position of the United States in the Arctic (Wezeman, 2012). The United States asserts that it has power projection and strategic deterrence capabilities in the Arctic because of its submarine, missile, and airborne assets (Defense Department, 2011). But security events in the Arctic may be largely associated with expensive commercial assets populated by civilians and monitored or escorted by foreign government representatives. Fighter jets and torpedoes have no role to play in such confrontations. A naval presence is required, with personnel who can board and secure the facility, as necessary. In general, the US Defense Department lacks the naval resources to maintain sea control for these situations. If non-Arctic countries set a precedent—even simply through prospecting surveys or shipping activity—their case for limiting the unresolved sovereignty rights of the Arctic nations is strengthened. Corporations necessarily engage in such activities, and it is natural for commercial ventures to test the boundaries of their franchises. But in a more negative sense, there is also the fear that access to a relatively unmonitored Arctic may offer an alternative location for companies to dispose of toxic waste. In assessing US security needs in the Arctic, the question to ask is not “What are the security risks when the Arctic opens?” but rather “How will security risks evolve as the geopolitical and economic expansion play out?” The physical speed with which the Arctic changes will determine the gap between reality and expectations. For example, **the more Russia, China, or South Korea experience significant benefit from Arctic activ**ities—to the point where they expect and depend on the growth from those activities—**the more likely that** a period where the Arctic again becomes environmentally inhospitable, or that the rules of sovereignty change to limit access, or that **commercialization of the region will cause political strains** from lost revenue or prestige. Abrupt changes in expectations and in a nation’s ability to cope with changing circumstances appear to be factors **that can trigger conflict** (Agency for International Development, 2009). If the early international relations dynamics in the Arctic move fairly slowly, all parties could co-evolve toward balanced positions with relatively little conflict. Rapid dynamics could raise tensions. If all nations sustain approximately equal positive or negative repercussions from changes in Arctic regulations or climatic conditions, or they all believe they could limit the pace and extent of negative impacts through negotiation, routine diplomatic processes could mollify tensions. Climate change will, however, produce an ever-shifting playing field that heightens tensions among countries more concerned with relative rather than absolute advantage in the area. Will events in the Arctic require US military responses before 2030? The consideration of uncertainty is part of climate and economic forecasting (Hendry and Ericsson, 2001; Meehl et al., 2007), and uncertainty is a mainstay of military planning: The adversary seldom announces battle plans prior to engagement. Military preparedness hinges not on best estimates, but on uncertainties that reflect risks the nation wants managed. From the vantage point of the present, the best estimate is that the Arctic of the near future will be free of military conflict. Risk, however, is the combination of probability (uncertainty) and consequence. **Lower-probability, high-consequence** events generally **contribute more to risk** than the best estimate. They are consequently much more relevant to national security planning than high-probability, routine-consequence conditions. **Perceived economic accessibility to the Arctic** and commercial success in the Arctic change the conditional probabilities; they **increase the odds that a sequence of events** that **leads to conflict** will materialize. It would be foolhardy to disregard the risks that low-probability, high-consequence events imply. An **unexpected** confluence of **vessels and aircraft** being in the wrong place, **when Arctic weather** conditions **prevent** adequate **communications, could lead to tense situations,** unless national security forces have the ability to readily manage the situation.

(:12)

Their defense doesn’t assume diplomatic gridlock which causes conflict

**Tassinari 12** writes[[34]](#footnote-34)

The geopolitics of the Arctic are stuck in a paradox: The more regional players restate the importance of international cooperation, the more some pundits and **policymakers** seem to **conclude that the Arctic risks descending into** competition and even **conflict**. The world is awakening to the growing strategic importance of the High North. As the Arctic ice melts due to global warming, it opens up new opportunities, from shorter shipping lanes to newly accessible oil and gas reserves; respectively, about 13 percent and 30 percent of the world’s undiscovered resources are in the Arctic, according to the U.S. Geological Survey. These discoveries are usually followed by declarations of the littoral nations to the effect that any potential disagreements over them will be resolved peacefully. However, **beneath expressions of goodwill**, the Arctic debate **is** often characterized by **a sense of urgency**, and even forms of alarmism. In recent years, instances of growing securitization of the Arctic have abounded. Back in 2008, a paper by Javier Solana, then the EU’s foreign policy’s chief, and the European Commission warned about “potential conflict over resources in Polar regions” as they become exploitable due to melting ice. In 2010, NATO’s supreme allied commander in Europe, Adm. James Stavridis, argued that “for now, the disputes in the North have been dealt with peacefully, but climate change could alter the equilibrium.” Then there are actions that speak louder than prepared speeches — from the famous August 2007 expedition that planted a Russian flag on the North Pole’s seabed to the annual summer **military exercises** carried out **by Canada** to **assert its sovereignty** in the North. Although the Russian stunt was most likely aimed at nationalist domestic audiences, some observers view these exercises as the expressions of competing national interests. As the scholar Scott Borgerson ominously put it: “The **Arctic powers are fast approaching diplomatic gridlock**, and **that could eventually lead to** the sort of **armed brinkmanship** that plagues other territories.” The geopolitical constellation in and around the region provides a ready justification for such an assessment. While no-one really imagines the United States, Canada, Norway, and Denmark fighting over the Arctic, some of their politicians have occasionally framed rhetoric in more peppered terms than one might expect. **Russia**, the fifth Arctic littoral nation, typically **treads a fine line between** declarations of **cooperation and** an innate **instinct for great-power competition**. Add to that the EU, which is seeking to carve its own role, and Asia’s giants, above all China, for which the opening of the Northeast passage may reduce sailing distance with Europe by some 40 percent, and **it is not hard to conjure up the prospect of an Arctic race building up**.

(:15)

Resource scramble is the most likely scenario for arctic war

**Larsen 11** writes[[35]](#footnote-35)

**Tension is building in the Arctic, where countries are vying for** valuable natural **resources** More oil, natural gas and mineral deposits can be accessed now because of climate change There have been territorial disputes over the underwater land where these deposits rest **The Arctic is** now **seeing** naval and military **activities it hasn't seen since the Cold War** (CNN) -- On a small, floating piece of ice in the Beaufort Sea, several hundred miles north of Alaska, a group of scientists are documenting what some dub an "Arctic meltdown." According to climate scientists, the warming of the region is shrinking the polar ice cap at an alarming rate, reducing the permafrost layer and wreaking havoc on polar bears, arctic foxes and other indigenous wildlife in the region. What is bad for the animals, though, has been good for commerce. The recession of the sea ice and the reduction in permafrost -- combined with advances in technology -- have allowed access to oil, mineral and natural gas deposits that were previously trapped in the ice. The abundance of these valuable **resources** and the opportunity to exploit them has **created a gold rush-like scramble** in the high north, **with fierce competition** **to determine which countries have** the **right** to access the riches of the Arctic. This competition has brought in its wake a host of naval and military activities that the Arctic hasn't seen since the end of the Cold War. Now, one of the coldest places on Earth is heating up as nuclear submarines, Aegis-class frigates, strategic bombers and a new generation of icebreakers are resuming operations there. Just how much oil and natural gas is under the Arctic ice? The Arctic is home to approximately 90 billion barrels of undiscovered but recoverable oil, according to a 2008 study by the U.S. Geological Survey. And preliminary estimates are that one-third of the world's natural gas may be harbored in the Arctic ice. But that's not all that's up for grabs. The Arctic also contains rich mineral deposits. Canada, which was not historically a diamond-producing nation, is now the third-largest diamond producer in the world. If the global warming trend continues as many scientists project it to, it is likely that more and more resources will be discovered as the ice melts further. Who are the countries competing for resources? The United States, Canada, Russia, Norway, Denmark, Iceland, Sweden and Finland all stake a claim to a portion of the Arctic. These **countries make up the Arctic Council, a** diplomatic forum designed to mediate disputes on Arctic issues Lawson Brigham, a professor at the University of Alaska Fairbanks and an Arctic expert, says "cooperation in the Arctic has never been higher." **But like** the **oil trapped on the** Arctic sea **floor**, much of the **activity of the Arctic Council is happening below the surface**. In secret diplomatic cables published by WikiLeaks, Danish Foreign Minister Per Stieg Moeller was quoted as saying to the United States, "If you stay out, the rest of us will have more to carve up the Arctic." At the root of Moeller's statement is a dispute over control of territories that is pitting friend against foe and against friend. Canada and the U.S., strategic allies in NATO and Afghanistan, are in a diplomatic dispute over the Northwest Passage. Canada and Russia have recently signed development agreements together. In the same way a compass goes awry approaching the North Pole, traditional strategic alliances are impacted at the top of the world. Who owns the rights to the resources? Right now, the most far-reaching legal document is the U.N. Convention on Law of the Sea, or UNCLOS. All of the Arctic states are using its language to assert their claims. The Law of the Sea was initially designed to govern issues like fishing rights, granting nations an exclusive economic zone 200 miles off their coasts. But in the undefined, changing and overlapping territory of the Arctic, the Law of the Sea becomes an imperfect guide, and there are disputes over who owns what. One example is the Lomonosov Ridge, which Canada, Denmark and Russia all claim is within their territory, based on their cartographic interpretations. Also complicating matters is the fact that the U.S. has never ratified the Law of the Sea. That has given other Arctic Council nations more muscle to assert territorial rights. So what's next? **With murky international** **agreements** and an absence of clear legal authority, **countries are** preaching cooperation but **preparing for conflict**. **There has been a flurry of new military activity** reminiscent of days past. Two U.S. nuclear-powered attack submarines, the SSN Connecticut and the SSN New Hampshire, recently finished conducting ice exercises in the Arctic. Secretary of the Navy Richard Mabus said the purpose of the recent naval exercises was "to do operational and war-fighting capabilities. Places are becoming open that have been ice-bound for literally millennia. You're going to see more and more of the world's attention pointed towards the Arctic." Other Arctic nations are ramping up their military capabilities as well. Just this month, Russia announced that it is deploying two brigades to the Arctic, including a special forces unit. The Russian air force has recently resumed strategic bomber flights over the Pole. Canada, Denmark and Norway are also rapidly rebuilding their military presence. But despite the buildup, almost all of the activity in the Arctic has been within the scope of normal military operations or research. Have we seen this before? There is a long precedent for countries using the Arctic to demonstrate military primacy. On April 25, 1958, the world's first nuclear-powered submarine -- the USS Nautilus (SSN 571) -- began Operation Sunshine, the first undersea transpolar crossing. Done on the heels of the Sputnik satellite launch, it was a demonstration that the U.S. could go places that its Cold War nemesis could not. For the next three decades, U.S. and Soviet submarines would continue to use the Arctic as a proving ground for military prowess. With the end of the Cold War, that activity waned. But in 2007, a Russian expedition planted a flag on the bottom of the polar sea floor, almost 14,000 feet below the surface. This "neo-Sputnik" has brought renewed interest to the Arctic and launched a flurry of activity -- scientific, economic and military -- that is eerily parallel to the decades of tension between the superpowers. The Cold War may be over, but the dethawing of **military activity means** that **the** frigid **Arctic is** once again **becoming a hot spot.**

(:20)

Military tensions are increasing now because of resource extraction disputes. The US and Canada are in a dispute over territorial sovereignty.

**Bert 12** writes[[36]](#footnote-36)

Like **the U**nited **S**tates**,** the Arctic nations of **Russia, Canada, Norway, and Denmark have geographical claims to the Arctic**. Unlike the United States, however, they have each sought to exploit economic and strategic opportunities in the region by developing businesses, infrastructure, and cities in the Arctic. **They have** also **renewed military exercises** of years past**, and as each nation learns** of **the others' activities, suspicion and competition increase. When the Russians sailed a submarine** in 2007 **to plant a titanium flag** on the "north pole," **they were seen as provocateurs**, not explorers. **The continental shelf is a particular point of contention.** Russia claims that deep underwater ridges on the sea floor, over two hundred miles from the Russian continent, are part of Russia and are legally Russia's to exploit. Denmark and Canada also claim those ridges. **Whichever state prevails** in that debate **will have exclusive extraction rights** to the resources, which, based on current continental shelf hydrocarbon lease sales, could be worth billions of dollars. Debates also continue regarding freedom of navigation and sovereignty over waters in the region. **Russia claims sovereignty over the Northern Sea Route** (NSR), which winds over the top of Russia and Alaska and will be a commercially viable route through the region within the next decade. The United States contends the NSR is an international waterway, free to any nation to transit. **The U**nited **S**tates also **has laid claim to portions of the Beaufort Sea that Canada says are Canadian, and the U**nited **S**tates **rejects Canada's claim that its Northwest Passage** from the Atlantic to the Pacific **is its internal waters**, as opposed to an international strait. Canada and Denmark also have a boundary dispute in Baffin Bay. Norway and Russia disagree about fishing rights in waters around the Spitsbergen/Svalbard Archipelago.

(:16)

Canada and Russia are in a sovereignty dispute over Arctic resources now.

**Daly 13** writes[[37]](#footnote-37)

**Canada has thrown down the gauntlet to Russia with a claim of Arctic sovereignty** that extends to the seabed under the geographical North Pole that Moscow also claims. The prize is that **the Arctic is believed to contain** as much as **25 percent of the world’s undiscovered** energy **resources**. According to a 2008 U.S. Geological Survey, the Arctic holds an estimated 13 percent, or 90 billion barrels of the world's undiscovered conventional oil resources and 30 percent of its undiscovered conventional natural gas resources. But much of this largesse has remained untouched because of a number of factors. The U.S. government’s Energy Information Administration notes, “**Consideration of** these **resources as commercially viable is** relatively **recent** despite the size of the Arctic's resources **due to the difficulty and cost in developing Arctic** oil and natural gas **deposits**. … Studies on the economics of onshore oil and natural gas projects in Arctic Alaska estimate costs to develop reserves in the region can be 50-100% more than similar projects undertaken in Texas. Profitable development of Arctic oil and natural gas deposits could be challenging due to the following factors: equipment needs to be specially designed to withstand the frigid temperatures; on Arctic lands, poor soil conditions can require additional site preparation to prevent equipment and structures from sinking; long supply lines and limited transportation access from the world's manufacturing centers require equipment redundancy and a larger inventory of spare parts to ensure reliability, while increasing transportation costs; employees expect higher wages and salaries to work in the isolated and inhospitable Arctic and natural gas hydrates can pose operational problems for drilling wells in both onshore and offshore Arctic areas.” At issue is each country's competing claim to its Exclusive Economic Zone (EEZ) under **the** Third **U**nited **N**ations Convention on the **Law of the Sea** (UNCLOS), which came into force in November 1994. UNCLOS Part V, Article 55 defined an “exclusive economic zone” (EEZ) for countries with maritime frontiers as extending 200 nautical miles from a nation’s coastline. Both Russia and Canada have signed UNCLOS, but the treaty **is murky on the** Arctic **dispute**, as a nation can secure control of the ocean floor beyond the internationally recognized 200 nautical mile limit if it can demonstrate the seabed is an extension of its continental shelf. Accordingly, Canada is preparing documentation to be submitted to the UN Commission on the Limits of the Continental Shelf. Besides the North Pole, and Arctic seabeds Canada is claiming sovereignty areas of the Atlantic Continental Shelf off its eastern coast, but there is no extended continental shelf Canada can claim in the Pacific Ocean. According to Dr. Jacob Verhoef, Canada's head of Arctic mapping, "Presently, Canada is on track to prepare and submit its outer limits of the extended continental shelf and substantiating information to the UN Commission by its deadline of December 2013." Canada filed only a partial submission to the UN Commission on the Limits of the Continental Shelf by the 6 December deadline, waiting until scientists can gather sufficient data to back up this territorial expansion to submit a full application. Research yet to be completed includes mapping the underwater Lomonosov Ridge, which the government of Prime Minister Stephen Harper believes would effectively link Canada to the North Pole. On 9 December Canadian Foreign Affairs Minister John Baird told a news conference, “We have asked our officials and scientists to do additional and necessary work to ensure that a submission for the full extent of the continental shelf in the Arctic includes Canada’s claim to the North Pole.” And how is Russian President and Supreme Commander of Russia’s military Vladimir Putin responding to this? At a 20 December meeting with Russia’s Ministry of Defense **Putin told** his audience during a long speech **that Russia would** focus upon and **strengthen its presence in its Arctic territory, stating that Russia must have "all the levers to protect its security** and national interests**" in the Arctic, adding that the Ministry of Defense should "pay special attention to** infrastructure deployment and **military units** on the Arctic direction" before concluding that Russia today is "increasingly developing this promising region…" . In reply, Russian Defense Minister Sergei Shoigu assured the Supreme Commander that already this year forces have been deployed in the Arctic tasked with protecting national interests there. Russia intends to make a similar application to UN Commission on the Limits of the Continental Shelf. Accordingly, it will be interesting to see if in its competing claims Canada will choose either Russia’s diplomatic carrot or military stick.

(:13)

No safeguards in the Arctic. Their defense is wrong.

**Berkman 13** writes[[38]](#footnote-38)

JUST a quarter-century ago, and for millenniums before that, the Arctic Ocean was covered year-round by ice, creating an impregnable wilderness that humans rarely negotiated. Today, **as** the **effects of** global **warming are amplified** in the high north, most of the ocean is open water during the summer and covered by ice only in the winter. **This** unexpected **transformation has radically altered** **the stakes** for the Arctic, especially for the eight nations and indigenous peoples that surround it. But while there has been cooperation on extracting the region’s oil, gas and mineral deposits, and exploiting its fisheries, **there has been little effort to develop** legal **mechanisms to prevent** or adjudicate **conflict**. The **potential for** such **conflict is high**, **even though tensions are** now **low**. Several **countries**, along with corporations like ExxonMobil and Royal Dutch Shell, **are preparing to exploit** the region’s enormous **oil and** natural **gas** reserves. New shipping routes will compete with the Panama and Suez Canals. Vast fisheries are being opened to commercial harvesting, without regulation. Coastal areas that are home to indigenous communities are eroding into the sea. **China and the E**uropean **U**nion **are** among non-Arctic governments **rushing to assert their interests** in the region. Some states have increased military personnel and equipment there. The most fundamental challenge for the Arctic states is to promote cooperation and prevent conflict. Both are essential, but a forum for achieving those goals does not yet exist. In 1996, eight countries — the United States, Russia, Canada, Norway, Finland, Sweden, Iceland and Denmark (which manages the foreign affairs and defense of Greenland) — and groups representing indigenous peoples established the Arctic Council to chart the region’s future. So far, this high-level forum has identified sustainable development and environmental protection as “common Arctic issues.” But another crucial concern — **maintaining the peace — was shelved in** the **talks** that led to the council’s creation. The **fear** then, as now, **was** that **peace implied demilitarization**. It doesn’t. But if these nations are still too timid to discuss peace in the region when tensions are low, how will they possibly cooperate to ease conflicts if they arise? Since 2006, each of the Arctic nations has adopted its own security policy to safeguard its sovereign rights. What they must do now is compare their separate security policies, identify the ways in which those policies reinforce or conflict with one another, and then balance national interests with common interests. How, for instance, will each nation position its military and police its territory? How will the Arctic states deal with China and other nations that have no formal jurisdictional claims but have strong interests in exploiting Arctic resources? How will Arctic and non-Arctic states work together to manage those resources beyond national jurisdictions, on the high seas and in the deep sea? Without ratifying the Convention on the Law of the Sea, a 1982 treaty governing use of the world’s oceans, how can the United States cooperate with other nations to resolve territorial disputes in the ocean? **NATO’s top** military **commander**, Adm. James G. Stavridis of the United States Navy, **warned** in 2010 **of a**n “icy **slope toward** a zone of competition, or worse, a zone of **conflict**” if the world’s leaders failed to ensure Arctic peace.

(:11)

Arctic war is likely. There are numerous scenarios their defense doesn’t answer.

**Gurbanov 13** writes[[39]](#footnote-39)

The Russian Arctic nature is specific with high sensitivity and exposure to man-made impacts. The groups of Greenpeace activists, who include Greenpeace Executive Director Kumi Naidoo (from South Africa), were criticizing oil and gas development on Russia’s Arctic shelf (Prirazlomnaya platform). Environmental groups have repeatedly criticized Gazprom for failing to publish their full “oil spill response plan” for the platform, saying that no technology yet exists to clean up oil spills in icy conditions and that even a small accident could be catastrophic for the Arctic ecosystem. There are protected natural areas, home to endangered species such as walruses and beluga whales, just 50 to 60 kilometers from the platform. Furthermore, Arctic ice caps also very rapidly getting melted. One can see an ice-free North Pole after several decades. Naidoo also wrote in his blog that “Gazprom is set to begin dangerous drilling on the Arctic shelf with no viable oil spill response plan”. Gazprom-Neft Shelf has rejected claims that the platform is a threat to the environment, claiming the platform’s performance last winter proved its reliability and that professional emergency response crews are on duty 24 hours within a day. Konstantin Simonov, head of Russia’s National Energy Security Fund in Moscow, told that “it will be difficult for an organization like Greenpeace to stop Russia’s Arctic plans. But, Russian companies must begin dialogue with them. It’s a good experience for Gazprom, but these actions will not stop and will not change the state policy of Russia in Arctic zone”. Arctic oil exploration is vital to sustaining Russia’s long-term status as the world’s top oil producer. Russia’s oil and gas production in western Siberia is declining. It means that Russia needs to find the alternative fields. Russian President Vladimir Putin has made the exploration of Russia’s Arctic reserves a strategic priority of Government. Now the Arctic is a national project and Russia will support it and is ready to invest for implementation of that project and the Greenpeace’s actions will not be able to stop Putin’s desire to begin the production of oil and gas in Arctic. It seems that environmental protection and ecological disasters are not high priorities for **Kremlin strategists**, who **consider** the **energy** sector as **the instrument** which Moscow can use **to cement** **its position** as a superpower both in the region and the world. Recently, Russia started the construction of one of Russia’s new generation submarines and Putin vowed to boost nuclear naval forces to guarantee the country’s position as a leading sea power. Putin said that Russia’s navy would protect Russia’s interests in the energy-rich Arctic zone. **This** is obviously **means** the **militarization of Arctic**, and Russia is also a part of this process. Not only Russia, as well as increasing military presence of United States and Canada in this area. The problem is very simple because Arctic **states** (Russia, United States, Canada, Norway and Denmark) still **have no** **decision to divide the Arctic**. Prirazlomnoye is on Russian part of Arctic. But **there are** still a lot of **grey zones** and there are still a lot of questions. The shipyards in Severodvinsk, on the White Sea, where nuclear submarines were built, have turned attentions to assembling drilling platforms. One was just recently assembled for use at the Prirazlomnoye oilfield in the Pechora Sea. The enormous metal construction, operated by a subsidiary of Russian energy giant Gazprom, is expected to start drilling operations in the coming months. In this regard, U.S. frequently emphasizes the importance of providing the marine security in the Arctic by U.S. Armed Forces. Because, Northwest Passage is the shortest way to deliver the energy resources of Arctic to Asia, Europe and Pacific coasts of the U.S. In 2007, Russia declared to establish Arctic Military Unit to protect the Northern continental shelf (the future energy reserves until 2020). Last year (2011), Russian Defence Minister Anatoly Serdyukov announced that Russia intends to create two new military brigades (with 10.000 troops) to protect its interests in the Arctic. **The** energy potential of the Arctic is a major driver behind Moscow’s decisions. The most of the proved oil reserves in the region are within the 200-mile economic limits of Russia and Canada. Canada, Denmark and China highlighted the significance of this question as well. Yet there are currently not an official Chinese Arctic strategy, which outlines China’s regional interests, political approaches, and legal positions in the near-term. However, over the past ten years, China has developed a serious interest in Arctic science, structured along four main axes: oceanography, biology, atmospheric science, and glaciology. The development of Arctic shipping routes is the driving factor of China’s Arctic interest, as the access to Arctic shipping routes could profoundly impact the country’s future trade and shipping patterns. **Arctic** Ocean **offers China** not only substantial commercial **opportunities** in terms of distance savings, but more importantly allows it **to diversify its supply and trade** routes. Because, China’s economy depends highly on the Strait of Malacca and the China’s economic development relies on secure access to its maritime communication lines. The **geo-economics** considerations, especially the access to natural resources and Arctic shipping lanes **are the** true **driver of China’s regional policy.** China’s rapidly growing energy demand requires country to find alternative routes and sources. Although China’s influence is thus far limited to political and economic power, the United States – which has historically seen the Pacific as its sphere of influence – worries about Beijing’s long-term intentions and involvement in the Arctic region in terms of naval expansion. Because, the Arctic is considered as European, North American and Russian strategic space. NATO also didn’t late to make a statement on the competition for the energy resources of Arctic. NATO says that Arctic region might be potential armed conflict region in the future **among** its **eight stakeholders** because of its energy resources. Thus, since 2007, the disputes over Lomonosov Ridges between Russia and Canada still continue. **Arctic is** a **strategic** region for Russia not only for its energy security, as well as for nuclear deterrence capacity. Because, given the satellite radars, missile and anti-missile systems of U.S. and NATO in the world and in space, the best place for Russia for its anti-missile capacity against nuclear strike are the polar ice caps in the Arctic. Russian submarines, under the polar ice caps of Arctic have a great importance in terms of response to prospective nuclear attacks and monitoring of the region.

**AT Heg Defense**

2,000 years of history confirm. Heg solves conflict.

**Wohlforth 8** writes[[40]](#footnote-40)

Despite increasingly compelling findings concerning the importance of status seeking in human behavior, research on its connection to war waned some three decades ago.38 Yet **empirical studies of the relationship between** both systemic and dyadic **capabilities distributions and war have continued to cumulate**. If the relationships implied by the status theory run afoul of well-established patterns or general historical findings, then there is little reason to continue investigating them. **The clearest empirical implication** of the theory **is that** status **competition is unlikely to cause great** **power** military **conflict in unipolar systems**. If status competition is an important contributory cause of great power war, then, ceteris paribus, unipolar systems should be markedly less war-prone than bipolar or multipolar systems. And this appears to be the case. As Daniel Geller notes in a review of the empirical literature: "**The only polar structure that appears to influence conflict probability is unipolarity."**39 In addition, a larger number of studies at the dyadic level support the related expectation that narrow capabilities gaps and ambiguous or unstable capabilities hierarchies increase the probability of war.40 These studies are based entirely on post-sixteenth-century European history, and most are limited to the post-1815 period covered by the standard data sets. Though the systems coded as unipolar, near-unipolar, and hegemonic are all marked by a high concentration of capabilities in a single state, these studies operationalize unipolarity in a variety of ways, often very differently from the definition adopted here. An ongoing collaborative project looking at ancient interstate systems over the course of **two thousand years suggests** that **historical systems** that come closest to the definition of unipolarity used here **exhibit precisely the** behavioral **properties implied by the theory**. 41 As David C. Kang's research shows, the East Asian system between 1300 and 1900 was an unusually stratified unipolar structure, with an economic and militarily dominant China interacting with a small number of geographically proximate, clearly weaker East Asian states.42 Status politics existed, but actors were channeled by elaborate cultural understandings and interstate practices into clearly recognized ranks. Warfare was exceedingly rare, and the major outbreaks occurred precisely when the theory would predict: when China's capabilities waned, reducing the clarity of the underlying material hierarchy and increasing status dissonance for lesser powers. Much more research is needed, but initial exploration of other arguably unipolar systems-for example, Rome, Assyria, the Amarna system-appears consistent with the hypothesis.43 Status Competition and Causal Mechanisms Both theory and evidence demonstrate convincingly that competition for status is a driver of human behavior, and social identity theory and related literatures suggest the conditions under which it might come to the fore in great power relations. Both the systemic and dyadic findings presented in large-N studies are broadly consistent with the theory, but they are also consistent with power transition and other rationalist theories of hegemonic war.

**AT Multipolarity Good**

(:15)

Multipolarity increases the risk of war. Status seeking is inevitable. Heg solves.

**Wohlforth 9** writes[[41]](#footnote-41)

The upshot is a near scholarly consensus that unpolarity’s consequences for great power conflict are indeterminate and that a power shift resulting in a return to bipolarity or **multipolarity will** not **raise the specter of great power war**. This article questions the consensus on two counts. First, I show that it depends crucially on a dubious assumption about human motivation. Prominent theories of war are based on the assumption that people are mainly motivated by the instrumental pursuit of tangible ends such as physical security and material prosperity. This is why such theories seem irrelevant to interactions among great powers in an international environment that diminishes the utility of war for the pursuit of such ends. Yet we know that **people are motivated by** a great many **noninstrumental motives**, not least by concerns regarding their social status. 3 As John Harsanyi noted, “Apart from economic payoffs, **social status** (social rank) **seems to be the most important** incentive and motivating **force of social behavior**.”4 This proposition rests on much firmer scientific ground now than when Harsanyi expressed it a generation ago, as **cumulating research shows** that **humans appear** to be **hardwired for sensitivity to status and that** **relative standing is a powerful** and independent **motivator** of behavior.5 [End Page 29] Second, I question the dominant view that status quo evaluations are relatively independent of the distribution of capabilities. If the status of states depends in some measure on their relative capabilities, and if states derive utility from status, then different distributions of capabilities may affect levels of satisfaction, just as different income distributions may affect levels of status competition in domestic settings. 6 Building on research in psychology and sociology, I argue that even capabilities distributions among major powers foster ambiguous status hierarchies, which generate more dissatisfaction and clashes over the status quo. And the more stratified the distribution of capabilities, the less likely such status competition is. **Unipolarity** thus **generates** far **fewer incentives** than either bipolarity or multipolarity **for** direct great power positional **competition over status.** Elites in the other major powers continue to prefer higher status, but **in a unipolar system they face** comparatively **weak incentives to translate that preference into costly action**. And the absence of such incentives matters because social status is a positional good—something whose value depends on how much one has in relation to others.7 “If everyone has high status,” Randall Schweller notes, “no one does.”8 While one actor might increase its status, all cannot simultaneously do so. High status is thus inherently scarce, and **competitions for status tend to be zero sum.**9

(:18)

Transition to multipolarity would cause chaos and conflict.

**Schmitt 7** writes[[42]](#footnote-42)

An additional problem, perhaps tied to the way the book is structured, is that Layne spends the majority of his time criticizing the argument for primacy without giving the reader much of a handle on the particulars of his own preferred strategy. As a result, we do not know whether his model of "offshore balancing" is more British in style--that is, fairly active in playing the decisive power broker among the other competing states--or more passive in content, such as the United States in the 1920s and 1930s. If the former, **a key problem with the strategy is that it requires a** far **more calculating** style of **statecraft than the U**nited **S**tates has **ever had.** And **even if we had** Henry **Kissinger upon** Henry **Kissinger** to carry it out, **would the American people really let their government** play this particular game of international politics, **shift**ing **partners based on power relations rather than on the character of the states themselves**? The **disappearance of the U**nited **S**tates **as a security guarantor is likely to lead to more competition** among states **and to the creation of a more chaotic** and fluid international **environment**. Britain had a hard enough time playing this role in its day, **finding itself in numerous conflicts** regardless. If the latter, the passive offshore balancing approach leads to the question of whether such a strategy results in putting off a security challenge until it may be far more difficult to deal with. Layne's bet, at least in the case of Iran and China today, is that if the United States would only get out of the way, other powers would naturally begin to meet the challenge. It is possible, but **doing so** might **create** even **more destabilizing competition** among other regional powers **or lead those same powers to acquiesce to China or Iran's new hegemony, fueling their ambitions rather than lessening them**. The **history** of international relations **suggests** that most great **crises result from neglecting to address more minor ones early** on. As Thayer argues, it is probably less costly to nip these threats in the bud to than wait for them to become full-blown security crises.

**AT Bioterror Defense**

New gene manipulation takes out their defense.

**MSNBC 11** writes[[43]](#footnote-43)

GENEVA — **New gene assembly tech**nology that offers great benefits for scientific research **could** also be **used by terrorists to create bio**logical **weapons**, U.S. Secretary of State Hillary Rodham Clinton warned Wednesday. The threat from bioweapons has drawn little attention in recent years, as governments focused more on the risk of nuclear weapons proliferation to countries such as Iran and North Korea. But experts have warned that **the increasing ease with which bioweapons can be created might be used by terror groups to develop and spread new diseases** that **could mimic the effects of** the fictional global epidemic portrayed in the Hollywood thriller "**Contagion**." Speaking at an international meeting in Geneva aimed at reviewing the 1972 Biological Weapons Convention, Clinton told diplomats that the challenge was to maximize the benefits of scientific research and minimize the risks that it could be used for harm. "**The emerging gene synthesis industry is making genetic material** more **widely available**," she said. "This has many benefits for research, but it could also potentially be used to assemble the components of a deadly organism." **Gene synthesis allows genetic material** — the building blocks of all organisms — **to be** artificially **assembled in the lab**, greatly **speeding up the creation of artificial viruses** and bacteria. The U.S. government has cited efforts by terrorist networks such as al-Qaeda to recruit scientists capable of making biological weapons as a national security concern. "**A** crude but **effective** terrorist **weapon can be made using** a small sample of any number of **widely available pathogens, inexpensive equipment, and college-level chemistry and biology**," Clinton told the meeting. "Less than a year ago, **al-Qaeda** in the Arabian Peninsula **made a call** to arms **for**, and I quote, **'brothers with degrees in** **microbiology or chemistry** ... **to develop a weapon of mass destruction**,'" she said. Clinton also mentioned the Aum Shinrikyo cult's attempts in Japan to obtain anthrax in the 1990s, and the 2001 anthrax attacks in the United States that killed five people. Washington has urged countries to be more transparent about their efforts to clamp down on the threat of bioweapons. But U.S. officials have also resisted calls for an international verification system — akin to that for nuclear weapons — saying it is too complicated to monitor every lab's activities around the world.

1. Diane Toomey (award-winning public radio journalist who has worked at *Marketplace*, the*World Vision Report* and *Living on Earth*, where she was the science editor. She also has reported on science, medicine and the environment for WUNC, the public radio station in Chapel Hill, N.C.) and Michael Klare (professor of peace and world security studies at Hampshire College in Massachusetts). “Global Scarcity: Scramble for Dwindling Natural Resources.” Environment 360 interview with Michael Klare. May 23rd, 2012. http://e360.yale.edu/feature/global\_scarcity\_scramble\_for\_dwindling\_natural\_resources/2531/ [↑](#footnote-ref-1)
2. Subankhar Banerjee (founder of ClimateStoryTellers.org). “Destabilization of Arctic Sea Ice Would Be Game Over for Climate.” Huffington Post. September 27th, 2013. http://www.huffingtonpost.com/subhankar-banerjee/destabilization-of-arctic\_b\_4000445.html? [↑](#footnote-ref-2)
3. Subankhar Banerjee (founder of ClimateStoryTellers.org). “Destabilization of Arctic Sea Ice Would Be Game Over for Climate.” Huffington Post. September 27th, 2013. http://www.huffingtonpost.com/subhankar-banerjee/destabilization-of-arctic\_b\_4000445.html? [↑](#footnote-ref-3)
4. The Daily Take and the Thom Hartmann Program (Hartman is the #1 progressive radio talk show host in the US and a New York Times bestselling author). “Last Hours of Humanity: Warming the World to Extinction.” http://truth-out.org/opinion/item/19311-last-hours-of-humanity-warming-the-world-to-extinction [↑](#footnote-ref-4)
5. Chiara Rogate ( M.A. candidate at The Johns Hopkins University’s SAIS Bologna Center) and Marco Ferrara (M.A.I.A. candidate at The Johns Hopkins University’s SAIS Bologna Center). “Climate Change and Power Shifts in the Arctic Region.” Bologna Center Journal for International Affairs Vol 15. August 21st, 2012. <http://bcjournal.org/volume-15/climate-change-and-power-shifts-in-the-arctic-region.html> [↑](#footnote-ref-5)
6. Michael Wallace and Steven Staples. \*Professor Emeritus at the University of British Columbia and President of the Rideau Institute in Ottawa

   “Ridding the Arctic of Nuclear Weapons: A Task Long Overdue,”http://www.arcticsecurity.org/docs/arctic-nuclear-report-web.pdf [↑](#footnote-ref-6)
7. Stockholm International Peace Research Institute, Kristopher Berg - researcher with the SIPRI Armed Conflict and Conflict Management Programme, “The Arctic Policies of Canada and the United States: Domestic Motives and International Context”, pg. 19, SIPRI Insights on Peace and Security, July 2012, http://www.scribd.com/doc/99895997/The-Arctic-policies-of-Canada-and-the-United-States-domestic-motives-and-international-context) [↑](#footnote-ref-7)
8. Lansing, Time Correspondent, Breakup, p. 229 [↑](#footnote-ref-8)
9. Thomas Barnett, Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College American military geostrategist and Chief Analyst at Wikistrat., worked as the Assistant for Strategic Futures in the Office of Force Transformation in the Department of Defense, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads,” March 7 2011 <http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads> [↑](#footnote-ref-9)
10. Robert, Brookings Institute senior fellow, Daniel W. Drezner, professor of international politics at Tufts University's Fletcher School, Gideon Rachman is chief foreign-affairs commentator for the Financial Times, Foreign Policy, "The Rise or Fall of the American Empire,"February 14th, 2012. http://www.foreignpolicy.com/articles/2012/02/14/the\_rise\_or\_fall\_of\_the\_american\_empire?page=full [↑](#footnote-ref-10)
11. Gregory, Senior Analyst & China Project Manager for the Global Security Program at the Union of Concerned Scientists, “The Risk of Nuclear War with China,” 9/21, <http://www.huffingtonpost.com/gregory-kulacki/the-risk-of-nuclear-war-w_b_1903336.html> [↑](#footnote-ref-11)
12. Ian Bremmer (president and founder of Eurasia Group, a leading global political risk research and consulting firm, and a professor at Columbia University). When foreign policy pundits analyze santa claus. 12-25-12. <http://drezner.foreignpolicy.com/posts/2012/12/25/when_foreign_policy_pundits_encounter_santa_claus> [↑](#footnote-ref-12)
13. James Jay Carafano, Ph.D., is Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies and Director of the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Davis Institute, at The Heritage Foundation. Jena Baker McNeill is Policy Analyst for Homeland Security and Ray Walser, Ph.D., is Senior Policy Analyst for Latin America in the Allison Center at The Heritage Foundation. Richard Weitz, Ph.D., is Senior Fellow and Director of the Center for Political–Military Analysis at Hudson Institute (“Expand NORAD to Improve Security in North America,” http://www.heritage.org/research/reports/2010/07/expand-norad-to-improve-security-in-north-america) [↑](#footnote-ref-13)
14. Robert, Graduate US Army Airborne School, Ft. Benning, Georgia, "Cyber attackers could shut down the electric grid for the entire east coast" 2012, http://www.examiner.com/article/cyber-attackers-could-easily-shut-down-the-electric-grid-for-the-entire-east-coa [↑](#footnote-ref-14)
15. Natalie, International Affairs, Trade and Finance Division, “The Arctic: Canadian Security and Defence”, 24 October 2008, http://www.parl.gc.ca/Content/LOP/ResearchPublications/prb0813-e.htm#illegalaccess [↑](#footnote-ref-15)
16. Barry Kellman is the director of the International Weapons Control Center, “Bioviolence: A Growing Threat”, The Futurist, May-June 2008, http://www.wfs.org/March-April09/MJ2008\_Kellman.pdf [↑](#footnote-ref-16)
17. Steinbruner, John D. Professor of Public Policy at the School of Public Policy at the University of Maryland and Director of the Center for International and Security Studies at Maryland. Foreign Policy. "Biological weapons: a plague upon all houses." 22 December 1997. JStor. [↑](#footnote-ref-17)
18. Lt Col Harry W. Conley is chief of the Systems Analysis Branch, Directorate of Requirements, Headquarters Air Combat Command (ACC), Langley AFB, Virginia. Air & Space Power Journal - Spring 2003 –http://www.airpower.maxwell.af.mil/airchronicles/apj/apj03/spr03/conley.html [↑](#footnote-ref-18)
19. Cresson H. Kearny, Oak Ridge civil defense project and Army's Decoration for Distinguished Civilian Service in 1972, Nuclear War Survival Skills, 1982, Oak Ridge National Laboratory, a Facility of the U.S. Department of Energy, Published by the Oregon Institute of Science and Medicine, http://www.oism.org/nwss/s73p912.htm [↑](#footnote-ref-19)
20. Research Fellow at the Future of Humanity Institute at Oxford University. PhD in computation neuroscience, Stockholm—AND—Jason G. Matheny—PhD candidate in Health Policy and Management at Johns Hopkins. special consultant to the Center for Biosecurity at the University of Pittsburgh—AND—Milan M. Ćirković—senior research associate at the Astronomical Observatory of Belgrade. Assistant professor of physics at the University of Novi Sad. (Anders, How can we reduce the risk of human extinction?, 9 September 2008, http://www.thebulletin.org/web-edition/features/how-can-we-reduce-the-risk-of-human-extinction) [↑](#footnote-ref-20)
21. Fiona Harvey (award-winning environmental journalist) and Shaun Walker (Moscow correspondent for the Guardian). “Arctic oil spill is certain if drilling goes ahead, said top scientist.” The Guardian. November 19th, 2013. http://www.theguardian.com/world/2013/nov/19/arctic-oil-drilling-russia [↑](#footnote-ref-21)
22. Michael McCarthy (environmental editor). “Oil exploration under Arctic ice could cause 'uncontrollable' natural disaster.” The Independent. September 6th, 2011. http://www.independent.co.uk/environment/oil-exploration-under-arctic-ice-could-cause-uncontrollable-natural-disaster-2349788.html [↑](#footnote-ref-22)
23. Fiona Harvey (award-winning environmental journalist) and Shaun Walker (Moscow correspondent for the Guardian). “Arctic oil spill is certain if drilling goes ahead, said top scientist.” The Guardian. November 19th, 2013. http://www.theguardian.com/world/2013/nov/19/arctic-oil-drilling-russia [↑](#footnote-ref-23)
24. Oil Change International. “Frozen Future: Shell’s ongoing gamble in the Arctic.” February 2014. http://priceofoil.org/content/uploads/2014/02/Frozen-Future.pdf [↑](#footnote-ref-24)
25. Violet, Vice President – Inuit Circumpolar Conference, “Global Environmental Change: An Inuit Reality”, 10-15, http://www.mcgill.ca/files/cine/Ford.pdf [↑](#footnote-ref-25)
26. US EPA. “Environmental Security: Strengthening National Security through Environmental Protection.” September 1999. http://nepis.epa.gov/Exe/ZyNET.exe/91018N4S.txt?ZyActionD=ZyDocument&Client=EPA&Index=1995%20Thru%201999&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C95THRU99%5CTXT%5C00000032%5C91018N4S.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1 [↑](#footnote-ref-26)
27. Oil Change International. “Frozen Future: Shell’s ongoing gamble in the Arctic.” February 2014. http://priceofoil.org/content/uploads/2014/02/Frozen-Future.pdf [↑](#footnote-ref-27)
28. Diane Toomey (award-winning public radio journalist who has worked at *Marketplace*, the*World Vision Report* and *Living on Earth*, where she was the science editor. She also has reported on science, medicine and the environment for WUNC, the public radio station in Chapel Hill, N.C.) and Michael Klare (professor of peace and world security studies at Hampshire College in Massachusetts). “Global Scarcity: Scramble for Dwindling Natural Resources.” Environment 360 interview with Michael Klare. May 23rd, 2012. http://e360.yale.edu/feature/global\_scarcity\_scramble\_for\_dwindling\_natural\_resources/2531/ [↑](#footnote-ref-28)
29. Terry Macalister (energy editor of The Guardian). “Arctic resource wealth poses dilemma for indigenous communities.” The Guardian. July 4th, 2011. http://www.theguardian.com/environment/2011/jul/04/arctic-resources-indigenous-communities [↑](#footnote-ref-29)
30. Aqukkasuk (Alaskan indigenous person). “The Arctic resource rush, enviros and Inuit poverty.” Alaska Indigenous. August 3rd, 2013. http://alaskaindigenous.wordpress.com/2013/08/03/arctic-resource-rush-enviros-and-inuit-poverty/ [↑](#footnote-ref-30)
31. Scott Martelle (freelance journalist and author). “Shell abandons (for now) Arctic oil drilling. Let’s make it permanent.” LA Times Opinion page. January 30th, 2014. http://www.latimes.com/opinion/opinion-la/la-ol-shell-arctic-drilling-20140130,0,4443896.story#axzz2t8YH2xov [↑](#footnote-ref-31)
32. Lars Lindholt (researcher for Statistics Norway). “Arctic natural resources in a global perspective.” 2006. http://www.ssb.no/a/english/publikasjoner/pdf/sa84\_en/kap3.pdf [↑](#footnote-ref-32)
33. Principal member of technical staff at Sandia National Laboratories and uses behavioral and physical simulation methods to access security risks associated with climate change [George Backus (Director of environmental and energy research at Cambridge Econometrics), “Arctic 2030: What are the consequences of climate change? The US response,” Bulletin of the Atomic Scientists July/August 2012 vol. 68 no. 4 9-16 [↑](#footnote-ref-33)
34. Fabrizio Tassinari is a non-resident Senior Fellow at the German Marshall Fund and the Head of Foreign Policy and EU Studies at the Danish Institute for International Studies, September 7, 2012, “Avoiding a Scramble for the High North”, http://blog.gmfus.org/2012/09/07/avoiding-a-scramble-for-the-high-north/ [↑](#footnote-ref-34)
35. Kaj Larsen, CNN, “'Ice Wars' heating up the Arctic”, <http://www.cnn.com/2011/WORLD/americas/07/15/larsen.arctic.ice.wars/index.html>, July 15, 2011 [↑](#footnote-ref-35)
36. Captain Melissa Bert (military fellow from the US Coast Guard). “A Strategy to Advance the Arctic Economy.” Policy Innovation Memorandum No. 14. Council on Foreign Relations Press. February 2012. http://www.cfr.org/arctic/strategy-advance-arctic-economy/p27258 [↑](#footnote-ref-36)
37. John Daly (CEO of US-Central Asia Biofuels Ltd). “Canada Lays Claim to Seabed Below North Pole.” Oil Price.com. December 29th, 2013. http://oilprice.com/Energy/Energy-General/Canada-Lays-Claim-to-Seabed-Below-North-Pole.html [↑](#footnote-ref-37)
38. Berkman, biological oceanographer at the University of California, Santa Barbara, and author of Environmental Security in the Arctic Ocean, 3/13/2013

    (Paul, “Preventing an Arctic Cold War,” New York Times, pg. A25) [↑](#footnote-ref-38)
39. Analyst-Strategic Outlook Think-Tank, “The Arctic: Venue of Geopolitical Wars?,” http://cesran.org/index.php?option=com\_content&view=article&id=1512%3Athe-arctic-venue-of-geopolitical-wars-&catid=58%3Amakale-ve-raporlar&Itemid=99&lang=en [↑](#footnote-ref-39)
40. William Wohlforth (Daniel Webster Professor of Government, Dartmouth. BA in IR, MA in IR and MPhil and PhD in pol sci, Yale). “Unipolarity, Status Competition, and Great Power War.” October 2008, World Politics Vol. 61, Iss. 1; pg. 28, 31 pgs, Proquest [↑](#footnote-ref-40)
41. William Wohlforth (professor of government at Dartmouth).“Unipolarity, Status Competition, and Great Power War,” World Affairs, January, project muse [↑](#footnote-ref-41)
42. Gary Schmitt, June 22, “To Be, or Not to Be . . . an Empire”, A former staff director of the Senate Select Committee on Intelligence, Gary Schmitt was executive director of the President's Foreign Intelligence Advisory Board (PFIAB) during President Reagan's second term. As director of AEI's program on advanced strategic studies, Schmitt's work will focus on longer-term strategic issues that will affect America's security at home and its ability to lead abroad., Professional Experience

    -Executive director, Project for the New American Century (a foreign and defense policy think tank), 1997-2005-Adjunct professor, Paul H. Nitze School of Advanced International Studies (SAIS), The Johns Hopkins University, 1996-97-Consultant, U.S. Department of Defense, 1992-1993-Fellow, The National Interest; the Brookings Institution; and the National Strategy Information Center, 1988-1996-Executive director, the President's Foreign Intelligence Advisory Board, the White House, 1984-1988

    -Minority staff director, 1982-1984; professional staff member, 1981-1984, Senate Select Committee on Intelligence-Research faculty, White Burkett Miller Center for Public Policy, University of Virginia, 1977-1979, http://www.aei.org/scholars/filter.,scholarID.103/scholar.asp [↑](#footnote-ref-42)
43. “Clinton warns of bioweapon threat from gene tech,” pg online @ http://www.msnbc.msn.com/id/45584359/ns/… “For an international verification system — akin to that for nuclear weapons — saying it is too complicated to monitor every lab's activities.” [↑](#footnote-ref-43)